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Лабораторная работа №5-7 по курсу «Операционные системы»

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Постановка задачи

Вариант 22.

Реализовать распределенную систему по асинхронной обработке запросов. В данной распределенной системе должно существовать 2 вида узлов: «управляющий» и «вычислительный». Необходимо объединить данные узлы в соответствии с той топологией, которая определена вариантом. Связь между узлами необходимо осуществить при помощи технологии очередей сообщений. Также в данной системе необходимо предусмотреть проверку доступности узлов в соответствии с вариантом. При убийстве («kill -9») любого вычислительного узла система должна пытаться максимально сохранять свою работоспособность, а именно все дочерние узлы убитого узла могут стать недоступными, но родительские узлы должны сохранить свою работоспособность.

Управляющий узел отвечает за ввод команд от пользователя и отправку этих команд на вычислительные узлы. Список основных поддерживаемых команд:

• Создание нового вычислительного узла

Формат команды: create id [parent]

id — целочисленный идентификатор нового вычислительного узла parent — целочисленный идентификатор родительского узла. Если топологией не предусмотрено введение данного параметра, то его необходимо игнорировать (если его ввели)

Формат вывода:

«Ok: pid», где pid – идентификатор процесса для созданного вычислительного узла

«Error: Already exists» - вычислительный узел с таким идентификатором уже существует

«Error: Parent not found» - нет такого родительского узла с таким идентификатором

«Error: Parent is unavailable» - родительский узел существует, но по каким-то причинам с ним не удается связаться

«Error: [Custom error]» - любая другая обрабатываемая ошибка

Примечания: создание нового управляющего узла осуществляется пользователем программы при помощи запуска исполняемого файла. Id и pid — это разные идентификаторы.

• Исполнение команды на вычислительном узле

Формат команды: exec id [params]

id — целочисленный идентификатор вычислительного узла, на который отправляется команда Φ ормат вывода:

«Ok:id: [result]», где result – результат выполненной команды

«Error:id: Not found» - вычислительный узел с таким идентификатором не найден

«Error:id: Node is unavailable» - по каким-то причинам не удается связаться с вычислительным узлом

«Error:id: [Custom error]» - любая другая обрабатываемая ошибка

• Топология

Узлы находятся в идеально сбалансированном бинарном дереве. Каждый следующий узел должен добавляться в самое наименьшее поддерево. [parent] — является необязательным параметром.

• Набора команд

Формат команды: exec id n $k_1 \dots k_n$

id – целочисленный идентификатор вычислительного узла, на который отправляется команда n – количество складываемых чисел (от 1 до 10₈)

k₁ ... k_n – складываемые числа

• Команда проверки

Формат команды: ping id

Команда проверяет доступность конкретного узла. Если узла нет, то необходимо выводить ошибку: «Error: Not found»

Общий метод и алгоритм решения

Операции ZeroMQ:

- void* zmq ctx new(void); создает новый контекст ZeroMQ
- void* zmq socket(void* context, int type); создает сокет ZMQ
- int zmq_bind(void* socket, const char* endpoint); привязывает сокет к конечной точке
- int zmq_connect(void* socket, const char* endpoint); подключает сокет к конечной точке
- int zmq close(void* socket); закрывает сокет ZMQ
- int zmq_ctx_destroy(void* context); завершает контекст ZMQ
- int zmq_msg_init(zmq_msg_t* msg); инициализирует пустое сообщение
- int zmq_msg_init_size(zmq_msg_t* msg, size_t size); инициализирует сообщение заданного размера
 - int zmq_msg_send(zmq_msg_t* msg, void* socket, int flags); отправляет сообщение
 - int zmq msg recv(zmq msg t* msg, void* socket, int flags); получает сообщение
 - int zmq msg close(zmq msg t* msg); освобождает сообщение

Алгоритм решения:

- 1. Запуск сервера
- 1. Сервер создает именованный канал (FIFO) /tmp/chat server для приема команд от клиентов.
- 2. Сервер открывает FIFO для чтения и переходит в режим ожидания команд.

2. Подключение клиента

- 1. Клиент запускается и запрашивает у пользователя логин.
- 2. Клиент подключается к серверу, отправляя команду CONNECT <логин> через FIFO сервера.
- 3. Сервер:
 - Регистрирует клиента.
 - Создает именованный канал для клиента (/tmp/chat client <логин>).
 - Сохраняет информацию о клиенте (логин, имя FIFO, файловый дескриптор).
- 4. Клиент открывает свой FIFO для чтения и запускает отдельный поток для приема сообщений.

3. Работа клиента

- 1. Клиент предоставляет пользователю меню команд:
 - о create_group <имя_группы>: Создает новую группу.
 - о join group <имя группы>: Присоединяется к существующей группе.
 - o send <логин получателя > <сообщение >: Отправляет личное сообщение.
 - o send group <имя группы> <сообщение>: Отправляет сообщение в группу.
 - o exit: Отключается от сервера.
- 2. Клиент отправляет команды серверу через FIFO сервера.

4. Обработка команд сервером

- 1. Сервер читает команды из своего FIFO.
- 2. В зависимости от команды:

- o CONNECT:
 - Регистрирует клиента.
 - Создает FIFO для клиента.
- o SEND:
 - Находит получателя по логину.
 - Отправляет сообщение через FIFO получателя.
- CREATE_GROUP:
 - Создает новую группу и добавляет ее в список групп.
- o JOIN GROUP:
 - Добавляет клиента в список участников группы.
- SEND_GROUP:
 - Находит группу.
 - Отправляет сообщение всем участникам группы, кроме отправителя.
- O DISCONNECT:
 - Удаляет клиента из списка.
 - Закрывает и удаляет FIFO клиента.
- 5. Получение сообщений клиентом
- 1. В отдельном потоке клиент читает данные из своего FIFO.
- 2. Если получено сообщение, оно выводится на экран.
 - 6. Завершение работы
- 1. Клиент отправляет команду DISCONNECT и завершает работу.
- 2. Сервер:
 - Удаляет клиента из списка.
 - Закрывает и удаляет FIFO клиента.
- 3. При завершении сервера (например, по Ctrl+C):
 - Закрывает и удаляет FIFO сервера.
 - Освобождает все ресурсы.

Код программы

main.c

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#include <zmq.h>
#include <unistd.h>
#include <time.h>
\#define\ FATAL\ (msg)\ \{\ fprintf(stderr,\ "FATAL\ ERROR:\ \$s,\ exiting.\n",\ msg);\ exit(EXIT\_FAILURE);\ \}
\#define\ ERROR(msg)\ \{\ fprintf(stderr,\ "ERROR:\ %s\n",\ msg);\ \}
#define DEFAULT_TIMEOUT 2
// Structure to represent a computational node
typedef struct compute_node_t {
int id;
pid_t pid;
int parent_id; // For topology, not always used
void *socket; // ZeroMQ socket to this node
struct compute_node_t *left;
struct compute_node_t *right;
char *last command;
int64_t last_command_sent;
} compute_node_t;
// Global root of the compute node tree (for topology 4)
compute_node_t *root_node = NULL;
```

```
Function to create a new compute node structure
compute_node_t *create_compute_node(int id, int parent_id) {
if (!node) FATAL("Failed to allocate memory for compute node");
node->id = id;
node->pid = 0; // PID will be set later after fork
node->parent id = parent id;
node->socket = NULL; // Socket will be created when process starts
node->left = NULL;
node->right = NULL;
node->last command = NULL;
node->last_command_sent = -1;
return node;
int count_nodes(compute_node_t *root) {
if (root == NULL)
return 0;
int result = 1;
if (root->left != NULL) {
result += count nodes(root->left);
if (root->right != NULL) {
result += count nodes(root->right);
return result;
compute node t *insert node(compute node t *root, compute node t *new node) {
if (root == NULL) {
```

```
return new_node;
if (count_nodes(root->left) <= count_nodes(root->right)) {
root->left = insert_node(root->left, new_node);
} else {
root->right = insert node(root->right, new node);
return root;
compute_node_t *find_node(compute_node_t *root, int id) {
if (root == NULL) {
return NULL;
if (root->id == id) {
return root;
compute_node_t *a = find_node(root->left, id);
if (a != NULL)
return a;
return find node(root->right, id);
// Function to send a command to a compute node and receive response
void send_command_to_node(compute_node_t *node, const char *command) {
zmq msg t request;
zmq_msg_init_size(&request, strlen(command) + 1);
```

```
strcpy(zmq_msg_data(&request), command);
if (zmq_msg_send(&request, node->socket, 0) == -1) {
zmq_msg_close(&request);
if (strcmp(command, "ping") == 0) {
printf("Ok: 0 // узел %d недоступен\n", node->id);
} else {
printf("Error:%d: Node is unavailable\n", node->id);
return; // Communication error
zmq_msg_close(&request);
node->last command = strdup(command);
node->last command sent = time(NULL);
void handle response(compute node t *node, const char *response) {
if (strcmp(response, "pong") == 0) {
printf("Ok: 1 // узел %d доступен\n", node->id);
} else if (strstr(response, "Ok") != NULL) {
printf("Ok:%d: %s\n", node->id, &response[4]);
} else if (strstr(response, "Error") != NULL) {
printf("Error:%d: %s\n", node->id, &response[7]);
} else if (strstr(node->last command, "exec") != NULL) {
printf("Ok:%d: %s\n", node->id, response);
void receive node(compute node t *node) {
zmq_msg_t reply;
```

```
zmq_msg_init(&reply);
if (zmq_msg_recv(&reply, node->socket, ZMQ_NOBLOCK) != -1) {
char *response = strdup((char *) zmq_msg_data(&reply));
zmq_msg_close(&reply);
if (node->last_command != NULL) {
handle_response(node, response);
node->last command = NULL;
node->last_command_sent = -1;
free(response);
return;
zmq_msg_close(&reply);
if (node->last command sent != -1 && time(NULL) - node->last command sent > DEFAULT TIMEOUT) {
if (strcmp(node->last_command, "ping") == 0) {
printf("Ok: 0 // узел %d недоступен\n", node->id);
} else {
printf("Error:%d: Node is unavailable\n", node->id);
node->last command = NULL;
node->last command sent = -1;
void receive_node_tree(compute_node_t *node) {
if (node != NULL) {
receive_node(node);
if (node->right != NULL)
receive_node_tree(node->right);
```

```
if (node->left != NULL)
receive_node_tree(node->left);
void compute_node_process(int node_id);
int inputAvailable() {
struct timeval tv;
tv.tv_sec = 0;
tv.tv_usec = 0;
fd_set read_fds;
FD ZERO(&read fds);
FD SET(STDIN FILENO, &read fds);
select(STDIN_FILENO + 1, &read_fds, NULL, NULL, &tv);
return (FD ISSET(STDIN FILENO, &read fds) != 0);
// Controller Node logic - now reads from console
void controller_node_logic() {
void *zmq_context = zmq_ctx_new();
printf("Controller Node started. Listening for commands from console...\n");
char command buffer[256]; // Buffer for console input
while (1) {
receive_node_tree(root_node);
if (!inputAvailable()) {
```

```
usleep(100 * 1000);
continue;
if (fgets(command_buffer, sizeof(command_buffer), stdin) == NULL) {
if (feof(stdin)) { // Check for EOF (Ctrl+D)
printf("Exiting on EOF.\n");
break;
} else {
ERROR("Error reading from console.");
continue;
// Remove trailing newline from fgets
command_buffer[strcspn(command_buffer, "\n")] = 0;
if (strlen(command_buffer) == 0) { // Handle empty input
continue;
printf("Received command: %s\n", command buffer);
char *command = strtok(command buffer, " ");
if (command != NULL) {
if (strcmp(command, "create") == 0) {
char *id_str = strtok(NULL, " ");
char *parent_id_str = strtok(NULL, " "); // Ignored in Topology 4 create command
int id = atoi(id_str);
if (find node(root node, id) != NULL) {
printf("Error: Already exists\n");
```

```
else {
compute_node_t *new_node = create_compute_node(id, -1); // Parent ID is not used in create
command for topology 4 as per instructions
root node = insert node(root node, new node);
pid t pid = fork();
if (pid == 0) {
// Child process (Compute Node)
compute_node_process(id);
exit(EXIT SUCCESS); // Child process exits after compute node logic
} else if (pid > 0) {
new node->pid = pid;
// Wait for compute node to start and connect (very basic sync, better approach would be needed
for robust system)
sleep(1); // Give time for node to start and bind. In real system, use proper handshake.
char address[50];
sprintf(address, "tcp://127.0.0.1:%d", 5550 + id); // Assuming port allocation based on ID
new_node->socket = zmq_socket(zmq_context, ZMQ_REQ);
int connect result = zmq connect(new node->socket, address);
if (connect result != 0) {
ERROR("Failed to connect to compute node, cleanup needed.");
printf("Error: Parent is unavailable<math>\n"); // Best guess for this lab based on error messages.
printf("Ok: %d\n", new_node->pid);
} else {
ERROR("Fork failed");
// Handle fork error, maybe remove node from tree if partially created.
printf("Error: [System error] \n"); // Generic error for fork failure.
```

```
else if (strcmp(command, "exec") == 0) {
char *id_str = strtok(NULL, " ");
int id = atoi(id_str);
compute_node_t *node = find_node(root_node, id);
if (node == NULL) {
printf("Error:%d: Not found\n", id);
} else {
char *params = strtok(NULL, ""); // Get the rest of the string as parameters
char exec_command[200];
sprintf(exec command, "exec %s", params);
send_command_to_node(node, exec_command);
} else if (strcmp(command, "ping") == 0) {
char *id str = strtok(NULL, " ");
int id = atoi(id str);
compute_node_t *node = find_node(root_node, id);
if (node == NULL) {
printf("Error: Not found\n");
} else {
send command to node(node, "ping");
} else {
printf("Error: [Unknown command] \n");
zmq ctx destroy(zmq context);
```

```
void compute_node_process(int node_id) {
void *zmq_context = zmq_ctx_new();
void *responder = zmq_socket(zmq_context, ZMQ_REP);
char address[50];
sprintf(address, "tcp://127.0.0.1:%d", 5550 + node_id); // Bind to port based on ID
int bind_result = zmq_bind(responder, address);
if (bind_result != 0) {
printf("Error code: %d", bind result);
FATAL("Compute node bind failed");
printf("Compute Node %d started, listening on <math>snn", node id, address);
while (1) {
zmq_msg_t request;
zmq msg init(&request);
zmq_msg_recv(&request, responder, 0);
char *command_str = strdup((char *) zmq_msg_data(&request));
zmq msg close(&request);
char *response str = NULL;
char *command = strtok(command str, " ");
if (strcmp(command, "exec") == 0) {
char *params str = strtok(NULL, ""); // Get all parameters after "exec"
char *n_str = strtok(params_str, " ");
int n = atoi(n_str);
```

```
int sum = 0;
for (int i = 0; i < n; ++i) {
char *k_str = strtok(NULL, " ");
sum += atoi(k_str);
char buffer[50];
int written = sprintf(buffer, "%d", sum);
buffer[written] = '\0';
response_str = strdup(buffer);
} else if (strcmp(command, "ping") == 0) {
response_str = strdup("pong");
} else {
response_str = strdup("Error: Unknown command for compute node");
zmq_msg_t reply;
zmq_msg_init_size(&reply, strlen(response_str) + 1);
strcpy(zmq_msg_data(&reply), response_str);
free(response str);
zmq_msg_send(&reply, responder, 0);
zmq_msg_close(&reply);
free(command str);
zmq_close(responder);
zmq_ctx_destroy(zmq_context);
```

```
int main() {

// Start controller logic, now reading from console directly

controller_node_logic();

return 0;
}
```

Протокол работы программы

```
Controller Node started. Listening for commands from console...
Received command: create 1
Compute Node 1 started, listening on tcp://127.0.0.1:5551
ping 1
Received command: ping 1
Ok: 1 // узел 1 доступен
create 4
Compute Node 4 started, listening on tcp://127.0.0.1:5554
p0k: 11482
ping 4
Received command: ping 4
Ok: 1 // узел 4 доступен exec 1 4 1 2 3 4
exec 4 2 3 4
Received command: exec 4 2 3 4
Ok:4: 7
Error:2: Not found
```

Strace: eventfd epoll

1. Уведомление о новых сообщениях:

- ZeroMQ использует eventfd для уведомления о том, что в очереди появились новые сообщения.
- Когда сообщение добавляется в очередь, ZeroMQ записывает значение в eventfd.

2. Мониторинг событий:

- ZeroMQ добавляет eventfd и сокеты в epoll.
- Когда epoll_wait возвращает событие, ZeroMQ проверяет, связано ли оно с eventfd или сокетом, и обрабатывает его.

```
execve("./main", ["./main"], 0xfffffb2ebff8 /* 30 vars */) = 0
brk(NULL)
                                                                                                     = 0xaaaada641000
mmap(NULL, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff84b46000
faccessat(AT_FDCWD, "/etc/ld.so.preload", R_OK) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/etc/ld.so.cache", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st mode=S IFREG|0644, st size=13859, ...}, AT EMPTY PATH) = 0
mmap(NULL, 13859, PROT_READ, MAP_PRIVATE, 3, 0) = 0xffff84b42000
close(3)
                                                                                           = 0
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libzmq.so.5", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=569160, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 698216, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff84a66000
mmap(0xffff84a70000, 632680, PROT\_READ|PROT\_EXEC, MAP\_PRIVATE|MAP\_FIXED|MAP\_DENYWRITE, 3, 0) = 0xffff84a70000 + 0xfff84a70000 + 0xffff84a70000 + 0xfff84a70000 + 0xfff84a7000 + 0xfff84a70000 + 0xfff84a70000 + 0xfff84a70000 + 0xfff84a7000 + 0xfff84a7000 + 0xfff84a7000 + 0xfff84a7000 + 0xfff84a7000 + 0xfff84a700 + 0xfff84a7000 + 0xfff84a7000 + 0xfff84a700 + 0xff764a700 + 0xfff84a700 + 0xff764a700 + 0xfff84a700 + 0xfff84a700 + 0xfff84a700 + 0xfff84a700 
munmap(0xffff84a66000, 40960)
                                                                                                                                   = 0
munmap(0xffff84b0b000, 22376)
mprotect(0xffff84af3000, 61440, PROT_NONE) = 0
mmap(0xffff84b02000, 36864, PROT\_READ|PROT\_WRITE, MAP\_PRIVATE|MAP\_FIXED|MAP\_DENYWRITE, 3, 0x82000) = 0xffff84b02000 + 0xfff84b02000 + 0xffff84b02000 + 0xfff84b02000 + 0xfff84b0200 + 0xfff84b02000 + 0xffff84b02000 + 0xfff84b02000 + 0xfff84b02000 + 0xfff84b02000 + 0xfff84b0200 + 0xff
close(3)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libc.so.6", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0755, st_size=1637400, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 1805928, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff848b7000
mmap(0xffff848c0000, 1740392, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0) = 0xffff848c0000
munmap(0xffff848b7000, 36864)
munmap(0xffff84a69000, 28264)
                                                                                                                                   = 0
mprotect(0xffff84a48000, 61440, PROT_NONE) = 0
mmap(0xffff84a57000, 24576, PROT\_READ|PROT\_WRITE, MAP\_PRIVATE|MAP\_FIXED|MAP\_DENYWRITE, 3, 0x187000) = 0xffff84a57000
mmap(0xffff84a5d000, 48744, PROT\_READ|PROT\_WRITE, MAP\_PRIVATE|MAP\_FIXED|MAP\_ANONYMOUS, -1, 0) = 0xffff84a5d000 + 0xffff84a5d0000 + 0xffff84a5d00000 + 0xffff84a5d0000 + 0xffff84a5d00000 + 0xffff84a5d00000 + 0xffff84a5d0000 + 0xffff84a5d0000 + 0xffff84a5d00000 + 0xffff84a5d00000 + 0xffff84a5d00000 + 0xffff84a5d0000000 + 0xffff84a5d00000000 + 0xffff84a5d0000000000 + 0xffff84a5d0
close(3)
                                                                                            = 0
```

```
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libbsd.so.0", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=80696, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 213024, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff8488b000
mmap(0xffff84890000, 147488, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0) = 0xffff84890000
munmap(0xffff8488b000, 20480)
munmap(0xffff848b5000, 40992)
                             = 0
mprotect(0xffff848a2000, 65536, PROT_NONE) = 0
mmap(0xffff848b2000, 8192, PROT READ|PROT WRITE, MAP PRIVATE|MAP FIXED|MAP DENYWRITE, 3, 0x12000) = 0xffff848b2000
mmap(0xffff848b4000, 32, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_ANONYMOUS, -1, 0) = 0xffff848b4000
close(3)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libsodium.so.23", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=227504, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 356856, PROT NONE, MAP PRIVATE|MAP ANONYMOUS, -1, 0) = 0xffff84838000
mmap(0xffff84840000, 291320, PROT READ|PROT EXEC, MAP PRIVATE|MAP FIXED|MAP DENYWRITE, 3, 0) = 0xffff84840000
munmap(0xffff84838000, 32768)
                             = 0
munmap(0xffff84888000, 29176)
mprotect(0xffff84877000, 61440, PROT_NONE) = 0
mmap(0xffff84886000,8192,PROT\_READ|PROT\_WRITE,MAP\_PRIVATE|MAP\_FIXED|MAP\_DENYWRITE,3,0x36000) = 0xffff84886000
                    =0
close(3)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libpgm-5.3.so.0", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st mode=S IFREG|0644, st size=305904, ...}, AT EMPTY PATH) = 0
mmap(NULL, 452544, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff847d1000
mmap(0xffff847e0000, 387008, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0) = 0xffff847e0000
munmap(0xffff847d1000, 61440)
munmap(0xffff8483f000, 1984)
                            = 0
mprotect(0xffff8482a000, 61440, PROT_NONE) = 0
mmap(0xffff84839000, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0x49000) = 0xffff84839000
mmap(0xffff8483b000, 14272, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_ANONYMOUS, -1, 0) = 0xffff8483b000
close(3)
                    =0
openat(AT FDCWD, "/lib/aarch64-linux-gnu/libnorm.so.1", O RDONLY|O CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=468928, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 8192, PROT READ|PROT WRITE, MAP PRIVATE|MAP ANONYMOUS, -1, 0) = 0xffff84b40000
mmap(NULL, 1321304, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff8469d000
```

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mmap(0xffff846a0000, 1255768, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0) = 0xffff846a0000
munmap(0xffff8469d000, 12288)
                            =0
munmap(0xffff847d3000, 51544)
                            =0
mprotect(0xffff8470f000, 65536, PROT_NONE) = 0
mmap(0xffff8471f000, 16384, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0x6f000) = 0xffff8471f000
mmap(0xffff84723000, 719192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_ANONYMOUS, -1, 0) = 0xffff84723000
close(3)
                   = 0
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libgssapi_krb5.so.2", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=313784, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 443248, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff84633000
mmap(0xffff84640000, 377712, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0) = 0xffff84640000
munmap(0xffff84633000, 53248)
                            = 0
munmap(0xffff8469d000, 9072)
mprotect(0xffff8468a000, 61440, PROT NONE) = 0
mmap(0xffff84699000, 16384, PROT READ|PROT WRITE, MAP PRIVATE|MAP FIXED|MAP DENYWRITE, 3, 0x49000) = 0xffff84699000
close(3)
                   = 0
openat(AT FDCWD, "/lib/aarch64-linux-gnu/libstdc++.so.6", O RDONLY|O CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=2190752, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 2332704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff84400000
munmap(0xffff8462a000, 63520)
mprotect(0xffff8460a000, 61440, PROT NONE) = 0
mmap(0xffff84619000, 57344, PROT READ|PROT WRITE, MAP PRIVATE|MAP FIXED|MAP DENYWRITE, 3, 0x209000) = 0xffff84619000
mmap(0xffff84627000, 10272, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_ANONYMOUS, -1, 0) = 0xffff84627000
close(3)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libgcc_s.so.1", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=84296, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 213704, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff843cb000
mmap(0xffff843d0000, 148168, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0) = 0xffff843d0000
munmap(0xffff843cb000, 20480)
                            =0
munmap(0xffff843f5000, 41672)
                            = 0
mprotect(0xffff843e4000, 61440, PROT_NONE) = 0
mmap(0xffff843f3000, 8192, PROT READ|PROT WRITE, MAP PRIVATE|MAP FIXED|MAP DENYWRITE, 3, 0x13000) = 0xffff843f3000
                   = 0
close(3)
```

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openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libmd.so.0", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=43128, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 172240, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff843a5000
mmap(0xffff843b0000, 106704, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0) = 0xffff843b0000
munmap(0xffff843a5000, 45056)
munmap(0xffff843cb000, 16592)
                                                                               = 0
mprotect(0xffff843ba000, 61440, PROT_NONE) = 0
mmap(0xffff843c9000, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0x9000) = 0xffff843c9000
                                                      = 0
close(3)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libpthread.so.0", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=13752, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff84b3e000
mmap(NULL, 135200, PROT NONE, MAP PRIVATE|MAP ANONYMOUS, -1, 0) = 0xffff8438e000
mmap(0xffff84390000, 69664, PROT READ|PROT EXEC, MAP PRIVATE|MAP FIXED|MAP DENYWRITE, 3, 0) = 0xffff84390000
munmap(0xffff8438e000, 8192)
                                                                              = 0
munmap(0xffff843a2000, 53280)
mprotect(0xffff84391000, 61440, PROT_NONE) = 0
mmap(0xffff843a0000, 8192, PROT\_READ|PROT\_WRITE, MAP\_PRIVATE|MAP\_FIXED|MAP\_DENYWRITE, 3, 0) = 0xffff843a0000, 0xffff843a000, 0xffff843a00, 0xfffff843a00, 0xffff843a00, 0xffff843a00, 0xfffff843a00, 0xfffff843a00, 0xfffff843a00, 0xfffff843a00, 0xfffff843a00, 0xfffff843a00, 0x
                                                      =0
close(3)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libm.so.6", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st mode=S IFREG|0644, st size=551064, ...}, AT EMPTY PATH) = 0
mmap(NULL, 680048, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff842e9000
mmap(0xffff842f0000, 614512, PROT\_READ|PROT\_EXEC, MAP\_PRIVATE|MAP\_FIXED|MAP\_DENYWRITE, 3, 0) = 0xffff842f0000 + 0xffff842f00000 + 0xffff842f0000 + 0xffff842f0000 + 0xffff842f00000 + 0xffff842f0000 + 0xffff842f00000 + 0xffff842f00000 + 0xffff842f0000 + 0xffff842f0000 + 0xffff842f0000 + 0xffff842f0000 + 0xffff842f00000 + 0xffff842f0000 + 0xffff842f00000 + 0xffff6400000 + 0xffff6400000 + 0xffff6400000 + 0xffff6400000 + 0xffff64000000 + 0x
munmap(0xffff842e9000, 28672)
munmap(0xffff84387000, 32880)
                                                                               =0
mprotect(0xffff84376000, 61440, PROT_NONE) = 0
mmap(0xffff84385000, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0x85000) = 0xffff84385000
close(3)
                                                      = 0
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libkrb5.so.3", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st mode=S IFREG|0644, st size=794432, ...}, AT EMPTY PATH) = 0
mmap(NULL, 924128, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff8420e000
mmap(0xffff84210000, 858592, PROT READ|PROT EXEC, MAP PRIVATE|MAP FIXED|MAP DENYWRITE, 3, 0) = 0xffff84210000
munmap(0xffff8420e000, 8192)
                                                                             =0
```

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munmap(0xffff842e2000, 55776)
mprotect(0xffff842c6000, 61440, PROT NONE) = 0
close(3)
                                    = 0
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libk5crypto.so.3", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=174424, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 307184, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff841c5000
mmap(0xffff841d0000, 241648, PROT READ|PROT EXEC, MAP PRIVATE|MAP FIXED|MAP DENYWRITE, 3, 0) = 0xffff841d0000
munmap(0xffff841c5000, 45056)
                                                     = 0
munmap(0xffff8420b000, 20464)
                                                     =0
mprotect(0xffff841f9000, 65536, PROT_NONE) = 0
mmap(0xffff84209000, 8192, PROT\_READ|PROT\_WRITE, MAP\_PRIVATE|MAP\_FIXED|MAP\_DENYWRITE, 3, 0x29000) = 0xffff84209000 + 0xffff8420900 + 0xffff8420900 + 0xffff8420900 + 0xffff8420900 + 0xffff8420900 + 0xffff8420900 + 0xffff84200 + 0xfff84200 + 0xffff84200 + 0x
close(3)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libcom_err.so.2", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=14184, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 143432, PROT NONE, MAP PRIVATE|MAP ANONYMOUS, -1, 0) = 0xffff841ac000
mmap(0xffff841b0000, 77896, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0) = 0xffff841b0000
munmap(0xffff841ac000, 16384)
                                                     = 0
munmap(0xffff841c4000, 45128)
                                                     =0
mprotect(0xffff841b3000, 61440, PROT_NONE) = 0
mmap(0xffff841c2000, 8192, PROT\_READ|PROT\_WRITE, MAP\_PRIVATE|MAP\_FIXED|MAP\_DENYWRITE, 3, 0x2000) = 0xffff841c2000
close(3)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libkrb5support.so.0", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st mode=S IFREG|0644, st size=47712, ...}, AT EMPTY PATH) = 0
mmap(NULL, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff84b3c000
mmap(NULL, 177016, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff84184000
mmap(0xffff84190000, 111480, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0) = 0xffff84190000
munmap(0xffff84184000, 49152)
                                                     = 0
munmap(0xffff841ac000, 13176)
                                                    = 0
mprotect(0xffff8419b000, 61440, PROT NONE) = 0
mmap(0xffff841aa000, 8192, PROT READ|PROT WRITE, MAP PRIVATE|MAP FIXED|MAP DENYWRITE, 3, 0xa000) = 0xffff841aa000
close(3)
                                     = 0
openat(AT FDCWD, "/lib/aarch64-linux-gnu/libkeyutils.so.1", O RDONLY|O CLOEXEC) = 3
```

= 0

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newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=18280, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 147472, PROT NONE, MAP PRIVATE|MAP ANONYMOUS, -1, 0) = 0xffff8416b000
mmap(0xffff84170000, 81936, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0) = 0xffff84170000
munmap(0xffff8416b000, 20480)
munmap(0xffff84185000, 40976)
                                                               = 0
mprotect(0xffff84174000, 61440, PROT_NONE) = 0
mmap(0xffff84183000, 8192, PROT READ|PROT WRITE, MAP PRIVATE|MAP FIXED|MAP DENYWRITE, 3, 0x3000) = 0xffff84183000
close(3)
                                            = 0
openat(AT FDCWD, "/lib/aarch64-linux-gnu/libresolv.so.2", O RDONLY|O CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=60104, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 199104, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff8413f000
mmap(0xffff84140000, 133568, PROT\_READ|PROT\_EXEC, MAP\_PRIVATE|MAP\_FIXED|MAP\_DENYWRITE, 3, 0) = 0xffff84140000, 133568, PROT\_READ|PROT\_EXEC, MAP\_PRIVATE|MAP\_DENYWRITE, 3, 0) = 0xffff84140000, 133568, PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT\_READ|PROT_READ|PROT\_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_READ|PROT_
munmap(0xffff8413f000, 4096)
                                                             =0
munmap(0xffff84161000, 59840)
mprotect(0xffff8414d000, 65536, PROT NONE) = 0
mmap(0xffff8415d000, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|MAP_DENYWRITE, 3, 0xd000) = 0xffff8415d000
mmap(0xffff8415f000, 6592, PROT READ|PROT WRITE, MAP PRIVATE|MAP FIXED|MAP ANONYMOUS, -1, 0) = 0xffff8415f000
close(3)
                                           =0
mmap(NULL, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff84b0f000
mmap(NULL, 12288, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff84b0c000
set_tid_address(0xffff84b0c0f0)
                                                          =5151
set_robust_list(0xffff84b0c100, 24) = 0
rseq(0xffff84b0c7c0, 0x20, 0, 0xd428bc00) = 0
mprotect(0xffff84a57000, 16384, PROT_READ) = 0
mprotect(0xffff8415d000, 4096, PROT_READ) = 0
mprotect(0xffff84183000, 4096, PROT READ) = 0
mprotect(0xffff841aa000, 4096, PROT_READ) = 0
mprotect(0xffff841c2000, 4096, PROT_READ) = 0
mprotect(0xffff84209000, 4096, PROT_READ) = 0
mprotect(0xffff842d5000, 45056, PROT_READ) = 0
mprotect(0xffff84385000, 4096, PROT_READ) = 0
mprotect(0xffff843a0000, 4096, PROT READ) = 0
mprotect(0xffff843c9000, 4096, PROT READ) = 0
mprotect(0xffff843f3000, 4096, PROT_READ) = 0
mprotect(0xffff84619000, 45056, PROT READ) = 0
mprotect(0xffff84699000, 8192, PROT_READ) = 0
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mprotect(0xffff8471f000, 12288, PROT_READ) = 0
mprotect(0xffff84839000, 4096, PROT READ) = 0
mprotect(0xffff84886000, 4096, PROT_READ) = 0
mprotect(0xffff848b2000, 4096, PROT_READ) = 0
mprotect(0xffff84b02000, 32768, PROT_READ) = 0
mprotect(0xaaaad7fe2000, 4096, PROT_READ) = 0
mmap(NULL, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) = 0xffff84a6e000
mprotect(0xffff84b4b000, 8192, PROT_READ) = 0
prlimit64(0, RLIMIT STACK, NULL, {rlim cur=8192*1024, rlim max=RLIM64 INFINITY}) = 0
munmap(0xffff84b42000, 13859)
                                   = 0
getrandom("\xff\x17\x77\xd7\x31\x43\x4c\x95", 8, GRND_NONBLOCK) = 8
brk(NULL)
                          = 0xaaaada641000
brk(0xaaaada662000)
                              = 0xaaaada662000
openat(AT_FDCWD, "/sys/devices/system/cpu/online", O_RDONLY|O_CLOEXEC) = 3
read(3, "0-9\n", 1024)
                             = 4
                        = 0
close(3)
openat(AT_FDCWD, "/sys/devices/system/cpu", O_RDONLY|O_NONBLOCK|O_CLOEXEC|O_DIRECTORY) = 3
newfstatat(3, "", {st mode=S IFDIR|0755, st size=0, ...}, AT EMPTY PATH) = 0
getdents64(3, 0xaaaada652ee0 /* 22 entries */, 32768) = 616
getdents64(3, 0xaaaada652ee0 /* 0 entries */, 32768) = 0
                        =0
close(3)
                        =5151
getpid()
sched_getaffinity(5151, 128, [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]) = 8
newfstatat(AT_FDCWD, "/etc/nsswitch.conf", {st_mode=S_IFREG|0644, st_size=494, ...}, 0) = 0
newfstatat(AT_FDCWD, "/", {st_mode=S_IFDIR|0755, st_size=4096, ...}, 0) = 0
openat(AT_FDCWD, "/etc/nsswitch.conf", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st mode=S IFREG|0644, st size=494, ...}, AT EMPTY PATH) = 0
read(3, "# /etc/nsswitch.conf\n#\n# Example"..., 4096) = 494
read(3, "", 4096)
                          =0
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=494, ...}, AT_EMPTY_PATH) = 0
close(3)
                        = 0
openat(AT_FDCWD, "/etc/ld.so.cache", O_RDONLY|O_CLOEXEC) = 3
newfstatat(3, "", {st mode=S IFREG|0644, st size=13859, ...}, AT EMPTY PATH) = 0
mmap(NULL, 13859, PROT_READ, MAP_PRIVATE, 3, 0) = 0xffff84b42000
close(3)
                        =0
openat(AT FDCWD, "/lib/aarch64-linux-gnu/tls/aarch64/atomics/libnss db.so.2", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/lib/aarch64-linux-gnu/tls/aarch64/atomics", 0xfffffe4f64800, 0) = -1 ENOENT (No such file or directory)
```

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openat(AT_FDCWD, "/lib/aarch64-linux-gnu/tls/aarch64/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/lib/aarch64-linux-gnu/tls/aarch64", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/tls/atomics/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/lib/aarch64-linux-gnu/tls/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/tls/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/lib/aarch64-linux-gnu/tls", 0xfffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/aarch64/atomics/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/lib/aarch64-linux-gnu/aarch64/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT FDCWD, "/lib/aarch64-linux-gnu/aarch64/libnss db.so.2", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/lib/aarch64-linux-gnu/aarch64", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/atomics/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/lib/aarch64-linux-gnu/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/lib/aarch64-linux-gnu", {st_mode=S_IFDIR|0755, st_size=4096, ...}, 0) = 0
openat(AT FDCWD, "/usr/lib/aarch64-linux-gnu/tls/aarch64/atomics/libnss db.so.2", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/usr/lib/aarch64-linux-gnu/tls/aarch64/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu/tls/aarch64/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/usr/lib/aarch64-linux-gnu/tls/aarch64", 0xfffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu/tls/atomics/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu/tls/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu/tls/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu/tls", 0xfffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu/aarch64/atomics/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/usr/lib/aarch64-linux-gnu/aarch64/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu/aarch64/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/usr/lib/aarch64-linux-gnu/aarch64", 0xfffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT FDCWD, "/usr/lib/aarch64-linux-gnu/atomics/libnss db.so.2", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu", {st_mode=S_IFDIR|0755, st_size=4096, ...}, 0) = 0
openat(AT_FDCWD, "/lib/tls/aarch64/atomics/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/lib/tls/aarch64/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT FDCWD, "/lib/tls/aarch64/libnss db.so.2", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/lib/tls/aarch64", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/lib/tls/atomics/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/lib/tls/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/lib/tls/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
```

```
newfstatat(AT FDCWD, "/lib/tls", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT FDCWD, "/lib/aarch64/atomics/libnss db.so.2", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/lib/aarch64/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/lib/aarch64/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/lib/aarch64", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/lib/atomics/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/lib/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/lib/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/lib", {st mode=S IFDIR|0755, st size=4096, ...}, 0) = 0
openat(AT FDCWD, "/usr/lib/tls/aarch64/atomics/libnss db.so.2", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/usr/lib/tls/aarch64/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/tls/aarch64/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/usr/lib/tls/aarch64", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/tls/atomics/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/usr/lib/tls/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT FDCWD, "/usr/lib/tls/libnss db.so.2", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT FDCWD, "/usr/lib/tls", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT FDCWD, "/usr/lib/aarch64/atomics/libnss db.so.2", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/usr/lib/aarch64/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/aarch64/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/usr/lib/aarch64", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/atomics/libnss_db.so.2", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/usr/lib/atomics", 0xffffe4f64800, 0) = -1 ENOENT (No such file or directory)
openat(AT FDCWD, "/usr/lib/libnss db.so.2", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
newfstatat(AT_FDCWD, "/usr/lib", \{st_mode=S_IFDIR|0755, st_size=4096, ...\}, 0\} = 0
munmap(0xffff84b42000, 13859)
                                   = 0
openat(AT FDCWD, "/etc/ld.so.cache", O RDONLY|O CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=13859, ...}, AT_EMPTY_PATH) = 0
mmap(NULL, 13859, PROT_READ, MAP_PRIVATE, 3, 0) = 0xffff84b42000
close(3)
                        = 0
openat(AT_FDCWD, "/lib/aarch64-linux-gnu/libnss_db-2.35.so", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
openat(AT_FDCWD, "/usr/lib/aarch64-linux-gnu/libnss_db-2.35.so", O_RDONLY|O_CLOEXEC) = -1 ENOENT (No such file or directory)
openat(AT FDCWD, "/lib/libnss db-2.35.so", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
openat(AT FDCWD, "/usr/lib/libnss db-2.35.so", O RDONLY|O CLOEXEC) = -1 ENOENT (No such file or directory)
munmap(0xffff84b42000, 13859)
                                    =0
openat(AT FDCWD, "/etc/protocols", O RDONLY|O CLOEXEC) = 3
newfstatat(3, "", {st_mode=S_IFREG|0644, st_size=2932, ...}, AT_EMPTY_PATH) = 0
```

```
lseek(3, 0, SEEK_SET)
                         = 0
read(3, "# Internet (IP) protocols\n#\n# Up"..., 4096) = 2932
read(3, "", 4096)
                          =0
                        = 0
close(3)
eventfd2(0, EFD_CLOEXEC)
fcntl(3, F_GETFL)
                            = 0x2 (flags O_RDWR)
fcntl(3, F_SETFL, O_RDWR|O_NONBLOCK) = 0
fcntl(3, F_GETFL)
                             = 0x802 (flags O_RDWR|O_NONBLOCK)
fcntl(3, F SETFL, O RDWR|O NONBLOCK) = 0
                       = 5151
getpid()
getpid()
                        =5151
getrandom("\x6b\x6c\x81\x50\xee\x2f\x9a\x92\x82\xd8\x8e\x27\x74\x37\x31\x44", 16, 0) = 16
getrandom("\x3e\x9b\xea\x61\x52\x81\xba\x2b\x97\xc0\xc9\xc0\xc4\xc0\xcd", 16, 0) = 16
newfstatat(1, "", {st_mode=S_IFCHR|0620, st_rdev=makedev(0x88, 0), ...}, AT_EMPTY_PATH) = 0
write(1, "Controller Node started. Listeni"..., 64) = 64
pselect6(1, [0], NULL, NULL, {tv_sec=0, tv_nsec=0}, NULL) = 1 (in [0], left {tv_sec=0, tv_nsec=0})
newfstatat(0, "", {st_mode=S_IFIFO|0600, st_size=0, ...}, AT_EMPTY_PATH) = 0
read(0, "create 1\nping 1\nexec 1 3 5 7 9\nc"..., 4096) = 69
write(1, "Received command: create 1\n", 27) = 27
clone(child_stack=NULL, flags=CLONE_CHILD_CLEARTID|CLONE_CHILD_SETTID|SIGCHLD, child_tidptt=0xffff84b0c0f0) = 5153
strace: Process 5153 attached
[pid 5151] clock_nanosleep(CLOCK_REALTIME, 0, {tv_sec=1, tv_nsec=0}, <unfinished ...>
[pid 5153] set_robust_list(0xffff84b0c100, 24) = 0
[pid 5153] eventfd2(0, EFD CLOEXEC) = 4
[pid 5153] fcntl(4, F_GETFL)
                                = 0x2 (flags O_RDWR)
[pid 5153] fcntl(4, F_SETFL, O_RDWR|O_NONBLOCK) = 0
[pid 5153] fcntl(4, F GETFL)
                             = 0x802 (flags O RDWR|O NONBLOCK)
[pid 5153] fcntl(4, F_SETFL, O_RDWR|O_NONBLOCK) = 0
[pid 5153] getpid()
                          =5153
[pid 5153] getpid()
                          =5153
[pid 5153] eventfd2(0, EFD_CLOEXEC) = 5
[pid 5153] fcntl(5, F_GETFL)
                                = 0x2 \text{ (flags O_RDWR)}
[pid 5153] fcntl(5, F_SETFL, O_RDWR|O_NONBLOCK) = 0
[pid 5153] fcntl(5, F_GETFL) = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5153] fcntl(5, F_SETFL, O_RDWR|O_NONBLOCK) = 0
[pid 5153] getpid()
                           =5153
[pid 5153] epoll_create1(EPOLL_CLOEXEC) = 6
```

```
[pid 5153] epoll_ctl(6, EPOLL_CTL_ADD, 5, {events=0, data={u32=3664091408, u64=187650785253648}}) = 0
[pid 5153] epoll ctl(6, EPOLL CTL MOD, 5, {events=EPOLLIN, data={u32=3664091408, u64=187650785253648}}) = 0
[pid 5153] getpid()
                            =5153
[pid 5153] rt_sigaction(SIGRT_1, {sa_handler=0xffff8493a700, sa_mask=[], sa_flags=SA_ONSTACK|SA_RESTART|SA_SIGINFO}, NULL, 8) = 0
[pid 5153] rt_sigprocmask(SIG_UNBLOCK, [RTMIN RT_1], NULL, 8) = 0
[pid 5153] mmap(NULL, 8454144, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0) = 0xffff83800000
[pid 5153] mprotect(0xffff83810000, 8388608, PROT_READ|PROT_WRITE) = 0
[pid 5153] rt_sigprocmask(SIG_BLOCK, \sim[], [], 8) = 0
[pid 5153] clone(child stack=0xffff8400e6e0,
flags=CLONE VM|CLONE FS|CLONE FILES|CLONE SIGHAND|CLONE THREAD|CLONE SYSVSEM|CLONE SETTLS|CLONE PARENT SETTID|C
LONE_CHILD_CLEARTIDstrace: Process 5154 attached
<unfinished ...>
[pid 5154] rseq(0xffff8400f640, 0x20, 0, 0xd428bc00 <unfinished ...>
[pid 5153] <... clone resumed>, parent_tid=[5154], tls=0xffff8400f660, child_tidptr=0xffff8400ef70) = 5154
[pid 5154] < ... rseq resumed>)
[pid 5153] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5154] set_robust_list(0xffff8400ef80, 24 <unfinished ...>
[pid 5153] < ... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5154] <... set_robust_list resumed>) = 0
[pid 5153] eventfd2(0, EFD_CLOEXEC <unfinished ...>
[pid 5154] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5153] <... eventfd2 resumed>) = 7
[pid 5154] <... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5153] fcntl(7, F_GETFL <unfinished ...>
[pid 5154] rt_sigprocmask(SIG_BLOCK, ~[RTMIN RT_1], <unfinished ...>
[pid 5153] <... fcntl resumed>)
                               = 0x2 (flags O_RDWR)
[pid 5154] < ... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5153] fcntl(7, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5154] sched_getparam(5154, <unfinished ...>
[pid 5153] < ... fcntl resumed>)
[pid 5154] \leq... sched_getparam resumed>[0]) = 0
[pid 5153] fcntl(7, F_GETFL < unfinished ...>
[pid 5154] sched_getscheduler(5154 < unfinished ...>
[pid 5153] <... fcntl resumed>)
                               = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5154] <... sched_getscheduler resumed>) = 0 (SCHED_OTHER)
[pid 5153] fcntl(7, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5154] sched_setscheduler(5154, SCHED_OTHER, [0] <unfinished ...>
[pid 5153] <... fcntl resumed>)
```

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[pid 5154] <... sched_setscheduler resumed>) = 0
[pid 5153] getpid( <unfinished ...>
[pid 5154] prctl(PR_SET_NAME, "ZMQbg/Reaper" <unfinished ...>
[pid 5153] <... getpid resumed>)
                                =5153
[pid 5154] < ... prctl resumed>)
[pid 5153] epoll_create1(EPOLL_CLOEXEC <unfinished ...>
[pid 5154] epoll_pwait(6, <unfinished ...>
[pid 5153] <... epoll_create1 resumed>) = 8
[pid 5153] epoll_ctl(8, EPOLL_CTL_ADD, 7, {events=0, data={u32=3664093488, u64=187650785255728}}) = 0
[pid 5153] epoll_ctl(8, EPOLL_CTL_MOD, 7, {events=EPOLLIN, data={u32=3664093488, u64=187650785255728}}) = 0
[pid 5153] mmap(NULL, 8454144, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0) = 0xffff82e00000
[pid 5153] mprotect(0xffff82e10000, 8388608, PROT_READ|PROT_WRITE) = 0
[pid 5153] rt_sigprocmask(SIG_BLOCK, \sim[], [], 8) = 0
[pid 5153] clone(child_stack=0xffff8360e6e0,
flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETTLS|CLONE_PARENT_SETTID|C
LONE_CHILD_CLEARTIDstrace: Process 5155 attached
<unfinished ...>
[pid 5155] rseq(0xffff8360f640, 0x20, 0, 0xd428bc00 < unfinished ...>
[pid 5153] < ... clone resumed>, parent_tid=[5155], tls=0xffff8360f660, child_tidptr=0xffff8360ef70) = 5155
[pid 5155] < ... rseq resumed>)
[pid 5153] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5155] set_robust_list(0xffff8360ef80, 24 <unfinished ...>
[pid 5153] <... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5155] < ... set_robust_list resumed >) = 0
[pid 5153] eventfd2(0, EFD_CLOEXEC <unfinished ...>
[pid 5155] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5153] < ... eventfd2 resumed>) = 9
[pid 5155] <... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5153] fcntl(9, F_GETFL <unfinished ...>
[pid 5155] rt_sigprocmask(SIG_BLOCK, ~[RTMIN RT_1], <unfinished ...>
[pid 5153] <... fcntl resumed>)
                               = 0x2 (flags O_RDWR)
[pid 5155] <... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5153] fcntl(9, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5155] sched_getparam(5155, <unfinished ...>
[pid 5153] < ... fcntl resumed>)
[pid 5155] <... sched_getparam resumed>[0]) = 0
[pid 5153] fcntl(9, F_GETFL <unfinished ...>
[pid 5155] sched_getscheduler(5155 < unfinished ...>
```

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[pid 5153] <... fcntl resumed>)
                             = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5155] <... sched getscheduler resumed>) = 0 (SCHED OTHER)
[pid 5153] fcntl(9, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5155] sched_setscheduler(5155, SCHED_OTHER, [0] <unfinished ...>
[pid 5153] < ... fcntl resumed>)
[pid 5155] <... sched_setscheduler resumed>) = 0
[pid 5153] getpid( <unfinished ...>
[pid 5155] prctl(PR_SET_NAME, "ZMQbg/IO/0" <unfinished ...>
[pid 5153] <... getpid resumed>)
                                =5153
[pid 5155] <... prctl resumed>)
[pid 5153] getpid( <unfinished ...>
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5153] <... getpid resumed>) = 5153
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0) = 0 (Timeout)
[pid 5153] socket(AF_NETLINK, SOCK_RAW|SOCK_CLOEXEC, NETLINK_ROUTE) = 10
[pid 5153] bind(10, {sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, 12) = 0
[pid 5153] getsockname(10, {sa_family=AF_NETLINK, nl_pid=5153, nl_groups=00000000}, [12]) = 0
[pid 5153] sendto(10, [{nlmsg_len=20, nlmsg_type=RTM_GETLINK, nlmsg_flags=NLM_F_REQUEST|NLM_F_DUMP, nlmsg_seq=1741222074,
```

nlmsg_pid=0}, {ifi_family=AF_UNSPEC, ...}], 20, 0, {sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, 12) = 20

```
[pid 5153] recvmsg(10, {msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12, msg_iov=[{iov_base=[[{nlmsg_len=1432,
nlmsg_type=RTM_NEWLINK, nlmsg_flags=NLM_F_MULTI, nlmsg_seq=1741222074, nlmsg_pid=5153}, {ifi_family=AF_UNSPEC,
iff_type=ARPHRD_LOOPBACK, iff_index=if_nametoindex("lo"), iff_flags=IFF_UP|IFF_LOOPBACK|IFF_RUNNING|IFF_LOWER_UP, iff_change=0},
nla\_type=IFLA\_LINKMODE\}, 0], [\{nla\_len=8, nla\_type=IFLA\_MTU\}, 65536], [\{nla\_len=8, nla\_type=IFLA\_MIN\_MTU\}, 0], [\{nla\_len=8, nla\_type=IFLA\_MIN\_MTU], 0], [\{nla\_len=8, nla\_type=IFLA\_MTU], 0], [\{nla\_type=IFLA\_MTU], 0], [\{n
nla_type=IFLA_MAX_MTU}, 0], [{nla_len=8, nla_type=IFLA_GROUP}, 0], [{nla_len=8, nla_type=IFLA_PROMISCUITY}, 0], [{nla_len=8, nla_type=0x3d/*
IFLA_??? */}, "\x00\x00\x00\x00\x00\n0"], [{nla_len=8, nla_type=IFLA_NUM_TX_QUEUES}, 1], [{nla_len=8, nla_type=IFLA_GSO_MAX_SEGS}, 65535],
[{nla_len=8, nla_type=IFLA_GSO_MAX_SIZE}, 65536], [{nla_len=8, nla_type=0x3a /* IFLA_??? */}, "\x00\x00\x01\x00"], [{nla_len=8, nla_type=0x3f/*
\label{eq:continuous} $$ xff\times07\times00", [\{nla_len=8, nla_type=0x3c /* IFLA_??? */\}, "xff\times00\times00"], [\{nla_len=8, nla_type=IFLA_NUM_RX_QUEUES\}, 1], [\{nla_len=5, nla_type=0x3c /* IFLA_??? */\}, "xff\times00\times00"], [\{nla_len=8, nla_type=0x3c /* IFLA_??? */], "xff\times00\times00"], [\{nla_len=8, nla_type=0x3c /* IFLA_?? */], [\{nla_len=8, nla_type=0x3c /* IFLA_?? */], "xff\times00\times00"], "xff\times00\times00"], 
nla_type=IFLA_CARRIER}, 1], [{nla_len=8, nla_type=IFLA_CARRIER_CHANGES}, 0], [{nla_len=8, nla_type=IFLA_CARRIER_UP_COUNT}, 0],
[\{nla\_len=8, nla\_type=IFLA\_CARRIER\_DOWN\_COUNT\}, 0], [\{nla\_len=5, nla\_type=IFLA\_PROTO\_DOWN\}, 0], [\{nla\_len=10, nla\_type=IFLA\_ADDRESS\}, nla\_type=IFLA\_ADDRESS], [\{nla\_len=10, nla\_type=IFLA\_ADDRESS], nla\_type=IFLA\_ADDRESS], [\{nla\_ten=10, nla\_type=IFLA\_ADDRESS], nl
00:00:00:00:00:00], [{nla_len=10, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:00], [{nla_len=204, nla_type=IFLA_STATS64}, {rx_packets=9925, nla_type=IFLA_STATS64}], [rx_packets=9925, nla_type=IFLA_STATS64], [rx_packets=9925, nla_type=IFLA_S
tx_packets=9925, rx_bytes=18797875, tx_bytes=18797875, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0,
rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_frifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0,
tx fifo errors=0, tx heartbeat errors=0, tx window errors=0, rx compressed=0, tx compressed=0, rx nohandler=0}], [{nla len=100, nla type=IFLA STATS},
{rx_packets=9925, tx_packets=9925, rx_bytes=18797875, tx_bytes=18797875, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0,
rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_frifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0,
tx_fifo_errors=0, tx_heartbeat_errors=0, tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=12, nla_type=IFLA_XDP},
[{nla_len=5, nla_type=IFLA_XDP_ATTACHED}, XDP_ATTACHED_NONE]], [{nla_len=12, nla_type=IFLA_QDISC}, "noqueue"], [{nla_len=812,
nla_type=IFLA_AF_SPEC}, [[{nla_len=140, nla_type=AF_INET}, [{nla_len=136, nla_type=IFLA_INET_CONF}, [[IPV4_DEVCONF_FORWARDING-1] = 1,
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nla_type=IFLA_LINK}, 0], [{nla_len=9, nla_type=IFLA_QDISC}, "noop"], ...]]], iov_len=4096}], msg_iovlen=1, msg_controllen=0, msg_flags=0}, 0) = 4032
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msg\_controllen=0, msg\_flags=0\}, 0) = 3280
```

[pid 5153] recvmsg(10, {msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12, msg_iov=[{iov_base=[{nlmsg_len=1468, nl_pid=0, nl_groups=00000000}, msg_namelen=12, msg_iov=[{iov_base=[{nlmsg_len=1468, nl_pid=0, nl_groups=00000000}]} nlmsg_type=RTM_NEWLINK, nlmsg_flags=NLM_F_MULTI, nlmsg_seq=1741222074, nlmsg_pid=5153}, {ifi_family=AF_UNSPEC, ifi type=ARPHRD ETHER, ifi index=if nametoindex("eth0"), ifi flags=IFF UP|IFF BROADCAST|IFF RUNNING|IFF MULTICAST|IFF LOWER UP, ifi_change=0}, [[{nla_len=9, nla_type=IFLA_IFNAME}, "eth0"], [{nla_len=8, nla_type=IFLA_TXQLEN}, 0], [{nla_len=5, nla_type=IFLA_OPERSTATE}, 6], nla_type=IFLA_MAX_MTU}, 65535], [{nla_len=8, nla_type=IFLA_GROUP}, 0], [{nla_len=8, nla_type=IFLA_PROMISCUITY}, $nla_type=0x3d \ /* \ IFLA_???* \ /*, \ "\x00\x00\x00\x00\x00\x00"], \ [\{nla_len=8, \ nla_type=IFLA_NUM_TX_QUEUES\}, \ 10], \ [\{nla_len=8, \ nla_type=IFLA_N$ nla_type=IFLA_GSO_MAX_SEGS}, 65535], [{nla_len=8, nla_type=IFLA_GSO_MAX_SIZE}, 65536], [{nla_len=8, nla_type=0x3a /* IFLA_??? */}, $"\x00\x00\x01\x00"$], [{nla_len=8, nla_type=0x3f/* IFLA_???*/}, $"\x00\x00\x01\x00"$], [{nla_len=8, nla_type=0x40/* IFLA_???*/}, $"\x00\x00\x01\x00"$], $[\{ nla_len=8, nla_type=0x3b \ / \ IFLA_??? \ */\}, \ "xf8\ xff\ x07\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */\}, \ "xff\ xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */\}, \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */\}, \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */\}, \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */\}, \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_??? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_?? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_?? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nla_type=0x3c \ / \ IFLA_? \ */], \ "xff\ x00"], \ [\{ nla_len=8, nl$ nla type=IFLA NUM RX QUEUES}, 10], [{nla len=5, nla type=IFLA CARRIER}, 1], [{nla len=8, nla type=IFLA CARRIER CHANGES}, 2], [{nla len=8, nla type=IFLA CARRIER UP COUNT}, 1], [{nla len=8, nla type=IFLA CARRIER DOWN COUNT}, 1], [{nla len=5, nla_type=IFLA_PROTO_DOWN}, 0], [{nla_len=10, nla_type=IFLA_ADDRESS}, 02:42:ac:11:00:03], [{nla_len=10, nla_type=IFLA_BROADCAST}, ff:ff:ff:ff:ff:ff:ff;], [{nla_len=204, nla_type=IFLA_STATS64}, {rx_packets=3354, tx_packets=1753, rx_bytes=51454683, tx_bytes=150138, rx_errors=0, tx_errors=0, rx dropped=0, tx dropped=0, multicast=0, collisions=0, rx length errors=0, rx over errors=0, rx crc errors=0, rx frame errors=0, rx fifo errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0, tx_fifo_errors=0, tx_heartbeat_errors=0, tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=100, nla_type=IFLA_STATS}, {rx_packets=3354, tx_packets=1753, rx_bytes=51454683, tx_bytes=150138, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0, rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0, tx_fifo_errors=0, tx_heartbeat_errors=0, tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=12, nla_type=IFLA_XDP}, [{nla_len=5, nla_type=IFLA_XDP_ATTACHED}, XDP_ATTACHED_NONE]], [{nla_len=16, nla_type=IFLA_LINKINFO}, [{nla_len=9, nla_type=IFLA_INFO_KIND}, "veth"]], [{nla_len=8, nla_type=IFLA_LINK_NETNSID}, 0], $[\{nla_len=8, nla_type=IFLA_LINK\}, 20], ...]], iov_len=4096\}], msg_iovlen=1, msg_controllen=0, msg_flags=0\}, 0) = 1468$

 $[pid\ 5153]\ recvmsg(10,\ \{msg_name=\{sa_family=AF_NETLINK,\ nl_pid=0,\ nl_groups=00000000\},\ msg_namelen=12,\ msg_iov=[\{iov_base=[\{nlmsg_len=20,\ nlmsg_type=NLMSG_DONE,\ nlmsg_flags=NLM_F_MULTI,\ nlmsg_seq=1741222074,\ nlmsg_pid=5153\},\ 0],\ iov_len=4096\}],\ msg_iovlen=1,\ msg_controllen=0,\ msg_flags=0\},\ 0)=20$

```
[pid 5153] sendto(10, [{nlmsg_len=20, nlmsg_type=RTM_GETADDR, nlmsg_flags=NLM_F_REQUEST[NLM_F_DUMP, nlmsg_seq=1741222075,
nlmsg_pid=0}, {ifa_family=AF_UNSPEC, ...}], 20, 0, {sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, 12) = 20
[pid 5153] recvmsg(10, {msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12, msg_iov=[{iov_base=[[{nlmsg_len=76,
nlmsg_type=RTM_NEWADDR, nlmsg_flags=NLM_F_MULTI, nlmsg_seq=1741222075, nlmsg_pid=5153}, {ifa_family=AF_INET, ifa_prefixlen=8,
ifa_flags=IFA_F_PERMANENT, ifa_scope=RT_SCOPE_HOST, ifa_index=if_nametoindex("lo")}, [[{nla_len=8, nla_type=IFA_ADDRESS},
inet_addr("127.0.0.1")], [{nla_len=8, nla_type=IFA_LOCAL}, inet_addr("127.0.0.1")], [{nla_len=7, nla_type=IFA_LABEL}, "lo"], [{nla_len=8, nla_type=IFA_LABEL}], "lo"], "lo
nla_type=IFA_FLAGS}, IFA_F_PERMANENT], [{nla_len=20, nla_type=IFA_CACHEINFO}, {ifa_prefered=4294967295, ifa_valid=4294967295,
cstamp = 14484, tstamp = 14484\}]]], [\{nlmsg\_len = 88, nlmsg\_type = RTM\_NEWADDR, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5153\}, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_flags = 1741222075,
{ifa_family=AF_INET, ifa_prefixlen=16, ifa_flags=IFA_F_PERMANENT, ifa_scope=RT_SCOPE_UNIVERSE, ifa_index=if_nametoindex("eth0")},
[[{nla len=8, nla type=IFA ADDRESS}, inet addr("172.17.0.3")], [{nla len=8, nla type=IFA LOCAL}, inet addr("172.17.0.3")], [{n
nla_type=IFA_BROADCAST}, inet_addr("172.17.255.255")], [{nla_len=9, nla_type=IFA_LABEL}, "eth0"], [{nla_len=8, nla_type=IFA_FLAGS},
IFA_F_PERMANENT], [{nla_len=20, nla_type=IFA_CACHEINFO}, {ifa_prefered=4294967295, ifa_valid=4294967295, cstamp=14490, tstamp=14490}]]],
[\{nlmsg\_len=80, nlmsg\_type=RTM\_NEWADDR, nlmsg\_flags=NLM\_F\_MULTI, nlmsg\_seq=1741222075, nlmsg\_pid=5153\}, \{ifa\_family=AF\_INET6, nlmsg\_type=RTM\_NEWADDR, nlmsg\_flags=NLM\_F\_MULTI, nlmsg\_seq=1741222075, nlmsg\_pid=5153\}, \{ifa\_family=AF\_INET6, nlmsg\_type=RTM\_NEWADDR, nlmsg\_flags=NLM\_F\_MULTI, nlmsg\_seq=1741222075, nlmsg\_pid=5153\}, \{ifa\_family=AF\_INET6, nlmsg\_type=RTM\_NEWADDR, nlmsg\_type=RTM\_NEW
ifa prefixlen=128, ifa flags=IFA F PERMANENT, ifa scope=RT SCOPE HOST, ifa index=if nametoindex("lo")}, [[{nla len=20,
nla_type=IFA_ADDRESS}, inet_pton(AF_INET6, "::1")], [{nla_len=20, nla_type=IFA_CACHEINFO}, {ifa_prefered=4294967295, ifa_valid=4294967295,
cstamp=14484, tstamp=14484}], [{nla_len=8, nla_type=IFA_FLAGS}, IFA_F_PERMANENT], [{nla_len=5, nla_type=0xb /* IFA_??? */}, "\x01"]]]],
iov_len=4096}], msg_iovlen=1, msg_controllen=0, msg_flags=0}, 0) = 244
[pid 5153] recvmsg(10, {msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12, msg_iov=[{iov_base=[{nlmsg_len=20,
nlmsg_type=NLMSG_DONE, nlmsg_flags=NLM_F_MULTI, nlmsg_seq=1741222075, nlmsg_pid=5153}, 0], iov_len=4096}], msg_iovlen=1, msg_controllen=0,
msg flags=0, 0) = 20
[pid 5153] close(10)
                                                                                          = 0
[pid 5153] socket(AF INET, SOCK STREAM|SOCK CLOEXEC, IPPROTO TCP) = 10
[pid 5153] setsockopt(10, SOL_SOCKET, SO_REUSEADDR, [1], 4) = 0
[pid 5153] bind(10, {sa_family=AF_INET, sin_port=htons(5551), sin_addr=inet_addr("127.0.0.1")}, 16) = 0
[pid 5153] listen(10, 100)
[pid 5153] getsockname(10, {sa_family=AF_INET, sin_port=htons(5551), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5153] getsockname(10, {sa_family=AF_INET, sin_port=htons(5551), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5153] getpid()
                                                                                        =5153
[pid 5153] write(7, "\1\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5155] <... epoll_pwait resumed>[{events=EPOLLIN, data={u32=3664093488, u64=187650785255728}}], 256, -1, NULL, 8) = 1
[pid 5153] < ... write resumed>)
[pid 5155] getpid( <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] <... getpid resumed>)
                                                                                                      =5153
[pid 5153] <... getpid resumed>)
[pid 5155] ppoll([{fd=7, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5153] write(9, "\1\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5155] <... ppoll resumed>)
                                                                                                    = 1 ([{fd=7, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5153] < ... write resumed>)
                                                                                                     = 8
[pid 5155] getpid( <unfinished ...>
[pid 5153] write(1, "Compute Node 1 started, listenin"..., 58 <unfinished ...>
[pid 5155] <... getpid resumed>)
                                                                                                      =5153
```

[pid 5153] <... write resumed>)

[pid 5155] read(7, <unfinished ...>

[pid 5153] getpid(<unfinished ...>

[pid 5155] <... read resumed>"\1\0\0\0\0\0\0\0\", 8) = 8

```
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] mmap(NULL, 134217728, PROT NONE, MAP PRIVATE|MAP ANONYMOUS|MAP NORESERVE, -1, 0 <unfinished ...>
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, NULL, NULL, 0 <unfinished ...>
[pid 5155] <... mmap resumed>)
                                  = 0xffff7ae000000
[pid 5153] <... ppoll resumed>)
                               = 1 ([{fd=9, revents=POLLIN}])
[pid 5155] munmap(0xffff7ae00000, 18874368 <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] <... munmap resumed>)
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] munmap(0xffff80000000, 48234496 <unfinished ...>
[pid 5153] read(9, <unfinished ...>
[pid 5155] <... munmap resumed>)
[pid 5153] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\0\8) = 8
[pid 5155] mprotect(0xffff7c000000, 135168, PROT_READ|PROT_WRITE < unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] <... mprotect resumed>) = 0
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] epoll ctl(8, EPOLL CTL ADD, 10, {events=0, data={u32=2080377712, u64=281472762121072}} <ur>
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5155] < ... epoll_ctl resumed >) = 0
[pid 5153] < ... ppoll resumed >) = 0 (Timeout)
[pid 5155] epoll_ctl(8, EPOLL_CTL_MOD, 10, {events=EPOLLIN, data={u32=2080377712, u64=281472762121072}} <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] < ... epoll_ctl resumed >) = 0
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] getpid( <unfinished ...>
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, NULL, NULL, 0 <unfinished ...>
[pid 5155] <... getpid resumed>) = 5153
[pid 5155] ppoll([{fd=7, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0) = 0 (Timeout)
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5151] <... clock_nanosleep resumed>0xffffe4f67958) = 0
[pid 5151] eventfd2(0, EFD_CLOEXEC) = 4
[pid 5151] fcntl(4, F_GETFL)
                                 = 0x2 (flags O RDWR)
[pid 5151] fcntl(4, F_SETFL, O_RDWR|O_NONBLOCK) = 0
[pid 5151] fcntl(4, F_GETFL)
                                 = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5151] fcntl(4, F SETFL, O RDWR|O NONBLOCK) = 0
[pid 5151] getpid()
                            = 5151
```

```
[pid 5151] epoll_create1(EPOLL_CLOEXEC) = 5
[pid 5151] epoll ctl(5, EPOLL CTL ADD, 4, {events=0, data={u32=3664068656, u64=187650785230896}}) = 0
[pid\ 5151]\ epoll\_ctl(5, EPOLL\_CTL\_MOD, 4, \{events=EPOLLIN, data=\{u32=3664068656, u64=187650785230896\}\}) = 0
[pid 5151] getpid()
                            =5151
[pid 5151] rt_sigaction(SIGRT_1, {sa_handler=0xffff8493a700, sa_mask=[], sa_flags=SA_ONSTACK|SA_RESTART|SA_SIGINFO}, NULL, 8) = 0
[pid 5151] rt_sigprocmask(SIG_UNBLOCK, [RTMIN RT_1], NULL, 8) = 0
[pid 5151] mmap(NULL, 8454144, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0) = 0xffff83800000
[pid 5151] mprotect(0xffff83810000, 8388608, PROT_READ|PROT_WRITE) = 0
[pid 5151] rt_sigprocmask(SIG_BLOCK, \sim[], [], 8) = 0
[pid 5151] clone(child_stack=0xffff8400e6e0,
flags=CLONE VM|CLONE FS|CLONE FILES|CLONE SIGHAND|CLONE THREAD|CLONE SYSVSEM|CLONE SETTLS|CLONE PARENT SETTID|C
LONE_CHILD_CLEARTID, parent_tid=[5172], tls=0xffff8400f660, child_tidptr=0xffff8400ef70) = 5172
strace: Process 5172 attached
[pid 5151] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5172] rseq(0xffff8400f640, 0x20, 0, 0xd428bc00 <unfinished ...>
[pid 5151] <... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5172] <... rseq resumed>)
[pid 5151] eventfd2(0, EFD_CLOEXEC <unfinished ...>
[pid 5172] set_robust_list(0xffff8400ef80, 24 <unfinished ...>
[pid 5151] < ... eventfd2 resumed >) = 6
[pid 5172] < ... \text{ set\_robust\_list resumed} > ) = 0
[pid 5151] fcntl(6, F_GETFL <unfinished ...>
[pid 5172] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5151] <... fcntl resumed>)
                               = 0x2 (flags O RDWR)
[pid 5172] <... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5151] fcntl(6, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5172] rt_sigprocmask(SIG_BLOCK, ~[RTMIN RT_1], <unfinished ...>
[pid 5151] <... fcntl resumed>)
[pid 5172] < ... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5151] fcntl(6, F_GETFL <unfinished ...>
[pid 5172] sched_getparam(5172, <unfinished ...>
[pid 5151] <... fcntl resumed>)
                               = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5172] <... sched_getparam resumed>[0]) = 0
[pid 5151] fcntl(6, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5172] sched_getscheduler(5172 < unfinished ...>
[pid 5151] < ... fcntl resumed>)
[pid 5172] <... sched_getscheduler resumed>) = 0 (SCHED_OTHER)
```

[pid 5151] getpid(<unfinished ...>

```
[pid 5172] sched_setscheduler(5172, SCHED_OTHER, [0] <unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5172] <... sched_setscheduler resumed>) = 0
[pid 5151] epoll_create1(EPOLL_CLOEXEC <unfinished ...>
[pid 5172] prctl(PR_SET_NAME, "ZMQbg/Reaper" <unfinished ...>
[pid 5151] < ... epoll_create1 resumed>) = 7
[pid 5172] <... prctl resumed>)
[pid 5151] epoll_ctl(7, EPOLL_CTL_ADD, 6, {events=0, data={u32=3664090192, u64=187650785252432}} <unfinished ...>
[pid 5172] epoll pwait(5, <unfinished ...>
[pid 5151] < ... epoll_ctl resumed >) = 0
[pid 5151] epoll_ctl(7, EPOLL_CTL_MOD, 6, {events=EPOLLIN, data={u32=3664090192, u64=187650785252432}}) = 0
[pid 5151] mmap(NULL, 8454144, PROT_NONE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK, -1, 0) = 0xffff82e00000
[pid 5151] mprotect(0xffff82e10000, 8388608, PROT_READ|PROT_WRITE) = 0
[pid 5151] rt_sigprocmask(SIG_BLOCK, \sim[], [], 8) = 0
[pid 5151] clone(child_stack=0xffff8360e6e0,
flags=CLONE VM|CLONE FS|CLONE FILES|CLONE SIGHAND|CLONE THREAD|CLONE SYSVSEM|CLONE SETTLS|CLONE PARENT SETTID|C
LONE_CHILD_CLEARTID, parent_tid=[5173], tls=0xffff8360f660, child_tidptr=0xffff8360ef70) = 5173
strace: Process 5173 attached
[pid 5151] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5173] rseq(0xffff8360f640, 0x20, 0, 0xd428bc00 <unfinished ...>
[pid 5151] < ... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5173] <... rseq resumed>)
[pid 5151] eventfd2(0, EFD_CLOEXEC) = 8
[pid 5173] set robust list(0xffff8360ef80, 24 <unfinished ...>
[pid 5151] fcntl(8, F_GETFL <unfinished ...>
[pid 5173] < ... \text{ set\_robust\_list resumed} > ) = 0
[pid 5151] <... fcntl resumed>)
                              = 0x2 (flags O RDWR)
[pid 5173] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5151] fcntl(8, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5173] < ... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5151] <... fcntl resumed>)
                              = 0
[pid 5173] rt_sigprocmask(SIG_BLOCK, ~[RTMIN RT_1], <unfinished ...>
[pid 5151] fcntl(8, F GETFL < unfinished ...>
[pid 5173] <... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5151] <... fcntl resumed>)
                              = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5173] sched getparam(5173, <unfinished ...>
[pid 5151] fcntl(8, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5173] \leq... sched_getparam resumed>[0]) = 0
```

```
[pid 5151] <... fcntl resumed>)
[pid 5173] sched getscheduler(5173 < unfinished ...>
[pid 5151] getpid( <unfinished ...>
[pid 5173] <... sched_getscheduler resumed>) = 0 (SCHED_OTHER)
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] sched_setscheduler(5173, SCHED_OTHER, [0] <unfinished ...>
[pid 5151] getpid( <unfinished ...>
[pid 5173] <... sched_setscheduler resumed>) = 0
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] prctl(PR_SET_NAME, "ZMQbg/IO/0" <unfinished ...>
[pid 5151] ppoll([{fd=8, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5173] <... prctl resumed>)
[pid 5151] <... ppoll resumed>)
                                 = 0 (Timeout)
[pid 5151] brk(0xaaaada684000 <unfinished ...>
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5151] <... brk resumed>)
                                 = 0xaaaada684000
[pid 5151] futex(0xffff846277a4, FUTEX_WAKE_PRIVATE, 2147483647) = 0
[pid 5151] futex(0xffff846277b0, FUTEX WAKE PRIVATE, 2147483647) = 0
[pid 5151] getpid()
                              =5151
[pid 5151] write(6, "1\0\0\0\0\0\0\0, 8) = 8
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=3664090192, u64=187650785252432}}], 256, -1, NULL, 8) = 1
[pid 5151] getpid( <unfinished ...>
[pid 5173] getpid( <unfinished ...>
[pid 5151] <... getpid resumed>)
                                  = 5151
[pid 5173] <... getpid resumed>)
                                = 5151
[pid 5151] write(8, "\1\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5173] ppoll([{fd=6, events=POLLIN}], 1, {tv sec=0, tv nsec=0}, NULL, 0 <unfinished ...>
[pid 5151] <... write resumed>)
[pid 5173] <... ppoll resumed>)
                                 = 1 ([{fd=6, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5151] write(1, "Ok: 5153\n", 9 < unfinished ...>
[pid 5173] getpid( <unfinished ...>
[pid 5151] <... write resumed>) = 9
[pid 5173] <... getpid resumed>) = 5151
[pid 5151] pselect6(1, [0], NULL, NULL, {tv_sec=0, tv_nsec=0}, NULL <unfinished ...>
[pid 5173] read(6, <unfinished ...>
[pid 5151] \le ... pselect6 resumed > = 1 (in [0], left {tv sec=0, tv nsec=0})
[pid 5173] <... read resumed>"\1\0\0\0\0\0\0\0\0\", 8) = 8
```

```
[pid 5151] write(1, "Received command: ping 1\n", 25 <unfinished ...>
[pid 5173] mmap(NULL, 134217728, PROT NONE, MAP PRIVATE|MAP ANONYMOUS|MAP NORESERVE, -1, 0 <unfinished ...>
[pid 5151] <... write resumed>)
                                   =0xffff7ae00000
[pid 5173] <... mmap resumed>)
[pid 5151] getpid( <unfinished ...>
[pid 5173] munmap(0xffff7ae00000, 18874368 <unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] <... munmap resumed>) = 0
[pid 5151] ppoll([{fd=8, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5173] munmap(0xffff80000000, 48234496 <unfinished ...>
[pid 5151] <... ppoll resumed>)
                               = 1 ([{fd=8, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5173] <... munmap resumed>)
[pid 5151] getpid( <unfinished ...>
[pid 5173] mprotect(0xffff7c000000, 135168, PROT_READ|PROT_WRITE < unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] <... mprotect resumed>) = 0
[pid 5151] read(8, <unfinished ...>
[pid 5173] socket(AF INET, SOCK STREAM|SOCK CLOEXEC, IPPROTO TCP <unfinished ...>
[pid 5151] <... read resumed>"\1\0\0\0\0\0\0\0\0", 8) = 8
[pid 5173] <... socket resumed>) = 9
[pid 5151] getpid( <unfinished ...>
[pid 5173] fcntl(9, F_GETFL < unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] < ... fcntl resumed > 0x2 (flags O_RDWR)
[pid 5151] ppoll([{fd=8, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0) = 0 (Timeout)
[pid 5173] fcntl(9, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5151] getpid( <unfinished ...>
[pid 5173] <... fcntl resumed>)
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] connect(9, {sa_family=AF_INET, sin_port=htons(5551), sin_addr=inet_addr("127.0.0.1")}, 16 <unfinished ...>
[pid 5151] ppoll([{fd=8, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5173] <... connect resumed>) = -1 EINPROGRESS (Operation now in progress)
[pid 5155] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080377712, u64=281472762121072}}], 256, -1, NULL, 8) = 1
[pid 5151] <... ppoll resumed>)
                                = 0 (Timeout)
[pid 5173] epoll_ctl(7, EPOLL_CTL_ADD, 9, {events=0, data={u32=2080379952, u64=281472762123312}} <unfinished ...>
[pid 5151] pselect6(1, [0], NULL, NULL, {tv sec=0, tv nsec=0}, NULL <unfinished ...>
[pid 5155] accept4(10, <unfinished ...>
```

```
[pid 5151] \le ... pselect6 resumed > = 1 (in [0], left {tv_sec=0, tv_nsec=0})
[pid 5173] <... epoll ctl resumed>) = 0
[pid 5151] write(1, "Received command: exec 1 3 5 7 9"..., 33 <unfinished ...>
[pid 5155] < ... accept4 resumed> (sa_family=AF_INET, sin_port=htons(41806), sin_addr=inet_addr("127.0.0.1")}, [128 => 16], SOCK_CLOEXEC) = 11
[pid 5151] <... write resumed>)
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 9, {events=EPOLLOUT, data={u32=2080379952, u64=281472762123312}} <unfinished ...>
[pid 5151] getpid( <unfinished ...>
[pid 5155] setsockopt(11, SOL_TCP, TCP_NODELAY, [1], 4 < unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] < ... epoll_ctl resumed >) = 0
[pid 5151] ppoll([{fd=8, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5155] <... setsockopt resumed>) = 0
[pid 5151] <... ppoll resumed>)
                               = 0 (Timeout)
[pid 5173] getpid( <unfinished ...>
[pid 5151] write(1, "Error:1: Node is unavailable\n", 29 <unfinished ...>
[pid 5155] getsockname(11, <unfinished ...>
[pid 5151] <... write resumed>)
[pid 5173] <... getpid resumed>) = 5151
[pid 5151] getpid( <unfinished ...>
[pid 5155] < ... getsockname resumed> {sa_family=AF_INET, sin_port=htons(5551), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] ppoll([{fd=6, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5151] ppoll([{fd=8, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5155] getpeername(11, <unfinished ...>
[pid 5151] <... ppoll resumed>)
                                = 0 (Timeout)
[pid 5173] < ... ppoll resumed >) = 0 (Timeout)
[pid 5151] pselect6(1, [0], NULL, NULL, {tv sec=0, tv nsec=0}, NULL <unfinished ...>
[pid 5155] < ... getpeername resumed>{sa_family=AF_INET, sin_port=htons(41806), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5151] <... pselect6 resumed>) = 1 (in [0], left {tv_sec=0, tv_nsec=0})
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5151] write(1, "Received command: create 2\n", 27 <unfinished ...>
[pid 5155] getpeername(11, <unfinished ...>
[pid 5151] <... write resumed>)
[pid 5173] < ... epoll pwait resumed>[{events=EPOLLOUT, data={u32=2080379952, u64=281472762123312}}], 256, -1, NULL, 8) = 1
[pid 5151] clone(child_stack=NULL, flags=CLONE_CHILD_CLEARTID|CLONE_CHILD_SETTID|SIGCHLD <unfinished ...>
[pid 5155] < ... getpeername resumed>{sa family=AF INET, sin port=htons(41806), sin addr=inet addr("127.0.0.1")}, [128 => 16]) = 0
strace: Process 5174 attached
```

```
[pid 5173] epoll_ctl(7, EPOLL_CTL_DEL, 9, 0xffff7c001438 <unfinished ...>
[pid 5155] fcntl(11, F GETFL < unfinished ...>
[pid 5151] <... clone resumed>, child_tidptr=0xffff84b0c0f0) = 5174
[pid 5174] set_robust_list(0xffff84b0c100, 24 <unfinished ...>
[pid 5173] < ... epoll_ctl resumed >) = 0
[pid 5151] clock_nanosleep(CLOCK_REALTIME, 0, {tv_sec=1, tv_nsec=0}, <unfinished ...>
[pid 5174] <... set_robust_list resumed>) = 0
[pid 5155] <... fcntl resumed>)
                               = 0x2 \text{ (flags O_RDWR)}
[pid 5173] getsockopt(9, SOL_SOCKET, SO_ERROR, <unfinished ...>
[pid 5174] eventfd2(0, EFD_CLOEXEC <unfinished ...>
[pid 5155] fcntl(11, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5174] <... eventfd2 resumed>) = 10
[pid 5173] <... getsockopt resumed>[0], [4]) = 0
[pid 5174] fcntl(10, F_GETFL <unfinished ...>
[pid 5155] <... fcntl resumed>)
[pid 5174] <... fcntl resumed>) = 0x2 (flags O_RDWR)
[pid 5173] setsockopt(9, SOL_TCP, TCP_NODELAY, [1], 4 < unfinished ...>
[pid 5174] fcntl(10, F SETFL, O RDWR|O NONBLOCK <unfinished ...>
[pid 5155] getpid( <unfinished ...>
[pid 5174] <... fcntl resumed>)
[pid 5173] < ... setsockopt resumed>) = 0
[pid 5174] fcntl(10, F_GETFL <unfinished ...>
[pid 5155] <... getpid resumed>) = 5153
[pid 5174] <... fcntl resumed>) = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5173] getsockname(9, <unfinished ...>
[pid 5174] fcntl(10, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5155] write(7, "\1\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5174] <... fcntl resumed>)
[pid 5173] < ... getsockname resumed>{sa_family=AF_INET, sin_port=htons(41806), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5174] getpid( <unfinished ...>
[pid 5155] <... write resumed>)
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] getpeername(9, <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] <... getpeername resumed>{sa_family=AF_INET, sin_port=htons(5551), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
```

```
[pid 5174] eventfd2(0, EFD_CLOEXEC <unfinished ...>
[pid 5155] < ... epoll pwait resumed>[{events=EPOLLIN, data={u32=3664093488, u64=187650785255728}}], 256, -1, NULL, 8) = 1
[pid 5174] <... eventfd2 resumed>) = 11
[pid 5173] fcntl(9, F_GETFL <unfinished ...>
[pid 5174] fcntl(11, F_GETFL < unfinished ...>
[pid 5155] getpid( <unfinished ...>
[pid 5174] < ... fcntl resumed > 0x2 (flags O_RDWR)
[pid 5173] <... fcntl resumed>) = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5174] fcntl(11, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5155] <... getpid resumed>) = 5153
[pid 5174] <... fcntl resumed>)
[pid 5173] fcntl(9, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5174] fcntl(11, F_GETFL <unfinished ...>
[pid 5155] ppoll([{fd=7, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5174] <... fcntl resumed>)
                                = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5173] <... fcntl resumed>)
                                = 0
[pid 5174] fcntl(11, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5155] <... ppoll resumed>)
                                = 1 ([{fd=7, revents=POLLIN}], left {tv sec=0, tv nsec=0})
[pid 5174] <... fcntl resumed>)
                                =0
[pid 5173] getpid( <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5155] getpid( <unfinished ...>
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] <... getpid resumed>) = 5151
[pid 5174] epoll_create1(EPOLL_CLOEXEC <unfinished ...>
[pid 5155] <... getpid resumed>) = 5153
[pid 5174] <... epoll create1 resumed>) = 12
[pid 5173] write(6, "\1\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5174] epoll_ctl(12, EPOLL_CTL_ADD, 11, {events=0, data={u32=3664146064, u64=187650785308304}} < unfinished ...>
[pid 5155] read(7, <unfinished ...>
[pid 5174] <... epoll_ctl resumed>) = 0
[pid 5173] <... write resumed>) = 8
[pid 5174] epoll_ctl(12, EPOLL_CTL_MOD, 11, {events=EPOLLIN, data={u32=3664146064, u64=187650785308304}} < unfinished ...>
[pid 5155] <... read resumed>"\1\0\0\0\0\0\0\0\0", 8) = 8
[pid 5174] < ... epoll_ctl resumed >) = 0
[pid 5173] epoll pwait(7, <unfinished ...>
[pid 5174] getpid( <unfinished ...>
```

```
[pid 5155] epoll_ctl(8, EPOLL_CTL_ADD, 11, {events=0, data={u32=2080381392, u64=281472762124752}} <unfinished ...>
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=3664090192, u64=187650785252432}}], 256, -1, NULL, 8) = 1
[pid 5155] < ... epoll_ctl resumed >) = 0
[pid 5174] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
[pid 5173] getpid( <unfinished ...>
[pid 5174] <... rt_sigprocmask resumed>[], 8) = 0
[pid 5155] epoll_ctl(8, EPOLL_CTL_MOD, 11, {events=EPOLLIN, data={u32=2080381392, u64=281472762124752}} <unfinished ...>
[pid 5174] clone(child stack=0xffff8360e6e0,
flags=CLONE VM|CLONE FS|CLONE FILES|CLONE SIGHAND|CLONE THREAD|CLONE SYSVSEM|CLONE SETTLS|CLONE PARENT SETTID|C
LONE_CHILD_CLEARTID <unfinished ...>
[pid 5173] <... getpid resumed>)
                                =5151
strace: Process 5175 attached
[pid 5173] ppoll([{fd=6, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5155] < ... epoll_ctl resumed >) = 0
[pid 5175] rseq(0xffff8360f640, 0x20, 0, 0xd428bc00 <unfinished ...>
[pid 5174] <... clone resumed>, parent_tid=[5175], tls=0xffff8360f660, child_tidptr=0xffff8360ef70) = 5175
[pid 5173] <... ppoll resumed>)
                                = 1 ([{fd=6, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5175] <... rseq resumed>)
                                 = 0
[pid 5174] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5155] epoll_ctl(8, EPOLL_CTL_MOD, 11, {events=EPOLLIN|EPOLLOUT, data={u32=2080381392, u64=281472762124752}} < unfinished ...>
[pid 5175] set_robust_list(0xffff8360ef80, 24 <unfinished ...>
[pid 5174] <... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5173] getpid( <unfinished ...>
[pid 5175] <... set_robust_list resumed>) = 0
[pid 5174] eventfd2(0, EFD_CLOEXEC <unfinished ...>
[pid 5155] < ... epoll_ctl resumed >) = 0
[pid 5175] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5174] <... eventfd2 resumed>) = 13
[pid 5173] <... getpid resumed>)
                                =5151
[pid 5175] < ... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5174] fcntl(13, F_GETFL < unfinished ...>
[pid 5155] recvfrom(11, <unfinished ...>
[pid 5175] rt_sigprocmask(SIG_BLOCK, ~[RTMIN RT_1], <unfinished ...>
[pid 5174] <... fcntl resumed>)
                              = 0x2 (flags O RDWR)
[pid 5173] read(6, <unfinished ...>
[pid 5175] <... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5174] fcntl(13, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
```

```
[pid 5155] <... recvfrom resumed>0xffff7c001308, 12, 0, NULL, NULL) = -1 EAGAIN (Resource temporarily unavailable)
[pid 5175] sched getparam(5175, <unfinished ...>
[pid 5174] <... fcntl resumed>)
[pid 5173] <... read resumed>"\1\0\0\0\0\0\0\0\0", 8) = 8
[pid 5175] <... sched_getparam resumed>[0]) = 0
[pid 5174] fcntl(13, F_GETFL < unfinished ...>
[pid 5155] getpid( <unfinished ...>
[pid 5175] sched_getscheduler(5175 < unfinished ...>
[pid 5174] <... fcntl resumed>) = 0x802 (flags O RDWR|O NONBLOCK)
[pid 5173] epoll_ctl(7, EPOLL_CTL_ADD, 9, {events=0, data={u32=2080379952, u64=281472762123312}} <unfinished ...>
[pid 5175] <... sched_getscheduler resumed>) = 0 (SCHED_OTHER)
[pid 5174] fcntl(13, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5155] <... getpid resumed>) = 5153
[pid 5175] sched_setscheduler(5175, SCHED_OTHER, [0] <unfinished ...>
[pid 5174] <... fcntl resumed>)
[pid 5173] <... epoll_ctl resumed>) = 0
[pid 5175] <... sched_setscheduler resumed>) = 0
[pid 5174] getpid( <unfinished ...>
[pid 5155] ppoll([{fd=7, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5175] prctl(PR_SET_NAME, "ZMQbg/Reaper" <unfinished ...>
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 9, {events=EPOLLIN, data={u32=2080379952, u64=281472762123312}} <unfinished ...>
[pid 5175] <... prctl resumed>)
[pid 5174] epoll create1(EPOLL CLOEXEC <unfinished ...>
                               = 0 (Timeout)
[pid 5155] <... ppoll resumed>)
[pid 5175] epoll_pwait(12, <unfinished ...>
[pid 5174] <... epoll create1 resumed>) = 14
[pid 5173] <... epoll_ctl resumed>) = 0
[pid 5174] epoll_ctl(14, EPOLL_CTL_ADD, 13, {events=0, data={u32=3664149216, u64=187650785311456}} < unfinished ...>
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5174] <... epoll_ctl resumed>) = 0
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 9, {events=EPOLLIN|EPOLLOUT, data={u32=2080379952, u64=281472762123312}} < unfinished ...>
[pid 5174] epoll_ctl(14, EPOLL_CTL_MOD, 13, {events=EPOLLIN, data={u32=3664149216, u64=187650785311456}} < unfinished ...>
[pid 5155] <... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080381392, u64=281472762124752}}], 256, 29994, NULL, 8) = 1
[pid 5174] < ... epoll_ctl resumed >) = 0
[pid 5173] <... epoll ctl resumed>) = 0
[pid 5174] rt_sigprocmask(SIG_BLOCK, ~[], <unfinished ...>
```

```
[pid 5155] sendto(11, "\377\0\0\0\0\0\0\0\0\1\177", 10, 0, NULL, 0 < unfinished ...>
[pid 5174] <... rt sigprocmask resumed>[], 8) = 0
[pid 5173] recvfrom(9, <unfinished ...>
[pid 5174] clone(child_stack=0xffff8400e6e0,
flags=CLONE_VM|CLONE_FS|CLONE_FILES|CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETTLS|CLONE_PARENT_SETTID|C
LONE CHILD CLEARTID <unfinished ...>
[pid 5155] <... sendto resumed>) = 10
strace: Process 5176 attached
[pid 5173] <... recvfrom resumed>"\377\0\0\0\0\0\0\0\0\1\177", 12, 0, NULL, NULL) = 10
[pid 5155] epoll_ctl(8, EPOLL_CTL_MOD, 11, {events=EPOLLIN, data={u32=2080381392, u64=281472762124752}} < unfinished ...>
[pid 5176] rseq(0xffff8400f640, 0x20, 0, 0xd428bc00 <unfinished ...>
[pid 5174] <... clone resumed>, parent_tid=[5176], tls=0xffff8400f660, child_tidptr=0xffff8400ef70) = 5176
[pid 5173] recvfrom(9, <unfinished ...>
[pid 5176] <... rseq resumed>)
[pid 5174] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5155] <... epoll_ctl resumed>) = 0
[pid 5176] set_robust_list(0xffff8400ef80, 24 <unfinished ...>
[pid 5174] < ... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5173] < ... recvfrom resumed>0xffff7c001c02, 2, 0, NULL, NULL) = -1 EAGAIN (Resource temporarily unavailable)
[pid 5176] < ... \text{ set\_robust\_list resumed} > ) = 0
[pid 5174] eventfd2(0, EFD_CLOEXEC <unfinished ...>
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5176] rt_sigprocmask(SIG_SETMASK, [], <unfinished ...>
[pid 5174] <... eventfd2 resumed>) = 15
[pid 5173] getpid( <unfinished ...>
[pid 5176] <... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5174] fcntl(15, F GETFL < unfinished ...>
[pid 5176] rt_sigprocmask(SIG_BLOCK, ~[RTMIN RT_1], <unfinished ...>
[pid 5173] <... getpid resumed>) = 5151
[pid 5176] < ... rt_sigprocmask resumed>NULL, 8) = 0
[pid 5174] <... fcntl resumed>)
                               = 0x2 (flags O_RDWR)
[pid 5176] sched_getparam(5176, <unfinished ...>
[pid 5173] ppoll([{fd=6, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5176] <... sched_getparam resumed>[0]) = 0
[pid 5174] fcntl(15, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5176] sched getscheduler(5176 < unfinished ...>
[pid 5173] <... ppoll resumed>)
                               = 0 (Timeout)
[pid 5176] <... sched_getscheduler resumed>) = 0 (SCHED_OTHER)
```

```
[pid 5174] <... fcntl resumed>)
                              =0
[pid 5176] sched setscheduler(5176, SCHED OTHER, [0] <unfinished ...>
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5176] <... sched_setscheduler resumed>) = 0
[pid 5174] fcntl(15, F_GETFL < unfinished ...>
[pid 5176] prctl(PR_SET_NAME, "ZMQbg/IO/0" <unfinished ...>
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080379952, u64=281472762123312}}], 256, 29994, NULL, 8) = 1
[pid 5176] < ... prctl resumed>)
[pid 5174] <... fcntl resumed>) = 0x802 (flags O RDWR|O NONBLOCK)
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5173] sendto(9, "\377\0\0\0\0\0\0\0\1\177\3", 11, 0, NULL, 0 < unfinished ...>
[pid 5174] fcntl(15, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5173] <... sendto resumed>) = 11
[pid 5155] <... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080381392, u64=281472762124752}}], 256, 29992, NULL, 8) = 1
[pid 5174] <... fcntl resumed>)
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 9, {events=EPOLLIN, data={u32=2080379952, u64=281472762123312}} <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5155] recvfrom(11, <unfinished ...>
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] < ... epoll_ctl resumed >) = 0
[pid 5174] getpid( <unfinished ...>
[pid 5155] < ... recvfrom resumed>"\377\0\0\0\0\0\0\0\0\1\177\3", 12, 0, NULL, NULL) = 11
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] epoll pwait(7, <unfinished ...>
[pid 5174] ppoll([{fd=15, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5155] epoll_ctl(8, EPOLL_CTL_MOD, 11, {events=EPOLLIN|EPOLLOUT, data={u32=2080381392, u64=281472762124752}} <unfinished ...>
[pid 5174] <... ppoll resumed>)
                               = 0 (Timeout)
[pid 5155] <... epoll_ctl resumed>) = 0
[pid 5174] socket(AF_NETLINK, SOCK_RAW|SOCK_CLOEXEC, NETLINK_ROUTE <unfinished ...>
[pid 5155] recvfrom(11, <unfinished ...>
[pid 5174] <... socket resumed>) = 16
[pid 5155] <... recvfrom resumed>0xffff7c001313, 53, 0, NULL, NULL) = -1 EAGAIN (Resource temporarily unavailable)
[pid 5174] bind(16, {sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, 12 <unfinished ...>
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5174] <... bind resumed>)
[pid 5155] < ... epoll pwait resumed>[{events=EPOLLOUT, data={u32=2080381392, u64=281472762124752}}], 256, 29987, NULL, 8) = 1
[pid 5174] getsockname(16, <unfinished ...>
```

```
[pid 5174] <... recvmsg resumed>{msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12,
msg\_iov = [[iov\_base = [[f.nlmsg\_len = 1432, nlmsg\_type = RTM\_NEWLINK, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5174], nlmsg\_seq = 1741222075, nlmsg\_seq = 174122207
{ifi_family=AF_UNSPEC, ifi_type=ARPHRD_LOOPBACK, ifi_index=if_nametoindex("lo"),
ifi flags=IFF UP|IFF LOOPBACK|IFF RUNNING|IFF LOWER UP, ifi change=0}, [[{nla len=7, nla type=IFLA IFNAME}, "lo"], [{nla len=8,
nla_type=IFLA_TXQLEN}, 1000], [{nla_len=5, nla_type=IFLA_OPERSTATE}, 0], [{nla_len=5, nla_type=IFLA_LINKMODE}, 0], [{nla_len=8, nla_type=IFLA_LINKMODE}, 0], [{nla_type=IFLA_LINKMODE}, 0], [{nla_type=IFLA_LINKMODE}, 0], [{nla_type=IFLA_LINKMODE}, 0], [{nla_type=IFLA_LINKMODE}, 0], [
nla_type=IFLA_GROUP}, 0], [{nla_len=8, nla_type=IFLA_PROMISCUITY}, 0], [{nla_len=8, nla_type=0x3d /* IFLA_??? */}, "\x00\x00\x00\x00\x00"],
[{nla_len=8, nla_type=IFLA_NUM_TX_QUEUES}, 1], [{nla_len=8, nla_type=IFLA_GSO_MAX_SEGS}, 65535], [{nla_len=8, nla_type=IFLA_GSO_MAX_SEGS}, 65535], [{nla_len=8, nla_type=IFLA_GSO_MAX_SEGS}, 65535], [{nla_len=8, nla_type=IFLA_GSO_MAX_SEGS}], [{nla_type=IFLA_TYPE}], [{nla_type=IFLA_TYPE}], [{nla_type=IFLA_TYPE}], [{nla_type=IFL
nla\_type=IFLA\_GSO\_MAX\_SIZE\}, 65536], [\{nla\_len=8, nla\_type=0x3a /* IFLA\_???*/\}, "\\ \xspace{1.5} "\xspace{1.5} "\
\label{eq:convergence} $$ \x00\times00\times01\times00"$, [\{nla\_len=8, nla\_type=0x40 /* IFLA\_???*/\}, "\x00\times00\times01\times00"$], [\{nla\_len=8, nla\_type=0x3b /* IFLA\_???*/\}, "\xf8\timesff\times07\times00"$], [\{nla\_len=8, nla\_type=0x3b /* IFLA\_???*/], "\xf8\timesff\times07\times00"$], [\{nla\_len=8, nla\_type=0x3b /* IFLA\_??*/], "\xf8\timesff\times07\times00"$], [\{nla\_len=8, nla\_type=0x3b /* IFLA\_??*/], "\xf8\timesff\times07\times00"$], [\{nla\_len=8, nla\_ty
nla_type=IFLA_CARRIER}, 1], [{nla_len=8, nla_type=IFLA_CARRIER_CHANGES}, 0], [{nla_len=8, nla_type=IFLA_CARRIER_UP_COUNT}, 0],
[{nla_len=8, nla_type=IFLA_CARRIER_DOWN_COUNT}, 0], [{nla_len=5, nla_type=IFLA_PROTO_DOWN}, 0], [{nla_len=10, nla_type=IFLA_ADDRESS},
00:00:00:00:00:00], [{nla_len=10, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:00], [{nla_len=204, nla_type=IFLA_STATS64}, {rx_packets=9971,
tx_packets=9971, rx_bytes=18822007, tx_bytes=18822007, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0,
rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_frifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0,
tx_fifo_errors=0, tx_heartbeat_errors=0, tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=100, nla_type=IFLA_STATS},
{rx_packets=9971, tx_packets=9971, rx_bytes=18822007, tx_bytes=18822007, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0,
rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_frifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0,
tx_fifo_errors=0, tx_heartbeat_errors=0, tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=12, nla_type=IFLA_XDP},
[{nla_len=5, nla_type=IFLA_XDP_ATTACHED}, XDP_ATTACHED_NONE]], [{nla_len=12, nla_type=IFLA_QDISC}, "noqueue"], [{nla_len=812,
nla_type=IFLA_AF_SPEC}, [[{nla_len=140, nla_type=AF_INET}, [{nla_len=136, nla_type=IFLA_INET_CONF}, [[IPV4_DEVCONF_FORWARDING-1] = 1,
[IPV4_DEVCONF_MC_FORWARDING-1] = 0, [IPV4_DEVCONF_PROXY_ARP-1] = 0, [IPV4_DEVCONF_ACCEPT_REDIRECTS-1] = 1,
[IPV4 DEVCONF SECURE REDIRECTS-1] = 1, [IPV4 DEVCONF SEND REDIRECTS-1] = 1, [IPV4 DEVCONF SHARED MEDIA-1] = 1,
[IPV4 DEVCONF RP FILTER-1] = 0, [IPV4 DEVCONF ACCEPT SOURCE ROUTE-1] = 1, [IPV4 DEVCONF BOOTP RELAY-1] = 0,
[IPV4\_DEVCONF\_LOG\_MARTIANS-1] = 0, \\ [IPV4\_DEVCONF\_TAG-1] = 0, \\ [IPV4\_DEVCONF\_ARPFILTER-1] = 0, \\ [IPV4\_DEVCONF\_MEDIUM\_ID-1] = 0, \\ [IPV4\_D
0, [IPV4_DEVCONF_NOXFRM-1] = 1, [IPV4_DEVCONF_NOPOLICY-1] = 1, [IPV4_DEVCONF_FORCE_IGMP_VERSION-1] = 0,
[IPV4_DEVCONF_ARP_ANNOUNCE-1] = 0, [IPV4_DEVCONF_ARP_IGNORE-1] = 0, [IPV4_DEVCONF_PROMOTE_SECONDARIES-1] = 0,
[IPV4\_DEVCONF\_ARP\_ACCEPT-1] = 0, \\ [IPV4\_DEVCONF\_ARP\_NOTIFY-1] = 0, \\ [IPV4\_DEVCONF\_ACCEPT\_LOCAL-1] = 0, \\ [IPV4\_DEVCONF\_ARP\_NOTIFY-1] = 0, \\ [IPV
[IPV4_DEVCONF_SRC_VMARK-1] = 0, [IPV4_DEVCONF_PROXY_ARP_PVLAN-1] = 0, [IPV4_DEVCONF_ROUTE_LOCALNET-1] = 0,
[IPV4_DEVCONF_IGMPV2_UNSOLICITED_REPORT_INTERVAL-1] = 10000, [IPV4_DEVCONF_IGMPV3_UNSOLICITED_REPORT_INTERVAL-1] =
1000, [IPV4\_DEVCONF\_IGNORE\_ROUTES\_WITH\_LINKDOWN-1] = 0, [IPV4\_DEVCONF\_DROP\_UNICAST\_IN\_L2\_MULTICAST-1] = 0, [IPV4\_DEVCONF\_DROP\_UNICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST-1] = 0, [IPV4\_DEVCONF\_DROP\_UNICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICAST\_IN\_L2\_MULTICA
[IPV4_DEVCONF_DROP_GRATUITOUS_ARP-1] = 0, [IPV4_DEVCONF_BC_FORWARDING-1] = 0, ...]]], [{nla_len=668, nla_type=AF_INET6},
[[{nla len=8, nla type=IFLA INET6 FLAGS}, IF READY], [{nla len=20, nla type=IFLA INET6 CACHEINFO}, {max reasm len=65535, tstamp=14484,
reachable\_time=15192, retrans\_time=1000\}], [\{nla\_len=240, nla\_type=IFLA\_INET6\_CONF\}, [[DEVCONF\_FORWARDING] = 0, [DEVCONF\_HOPLIMIT] = 0, [DEVCONF\_HOP
64, [DEVCONF_MTU6] = 65536, [DEVCONF_ACCEPT_RA] = 1, [DEVCONF_ACCEPT_REDIRECTS] = 1, [DEVCONF_AUTOCONF] = 1,
[DEVCONF_DAD_TRANSMITS] = 1, [DEVCONF_RTR_SOLICITS] = -1, [DEVCONF_RTR_SOLICIT_INTERVAL] = 4000,
[DEVCONF_RTR_SOLICIT_DELAY] = 1000, [DEVCONF_USE_TEMPADDR] = -1, [DEVCONF_TEMP_VALID_LFT] = 604800,
[DEVCONF_TEMP_PREFERED_LFT] = 86400, [DEVCONF_REGEN_MAX_RETRY] = 3, [DEVCONF_MAX_DESYNC_FACTOR] = 600,
[DEVCONF_MAX_ADDRESSES] = 16, [DEVCONF_FORCE_MLD_VERSION] = 0, [DEVCONF_ACCEPT_RA_DEFRTR] = 1,
[DEVCONF\_ACCEPT\_RA\_PINFO] = 1, [DEVCONF\_ACCEPT\_RA\_RTR\_PREF] = 1, [DEVCONF\_RTR\_PROBE\_INTERVAL] = 60000, \\ [DEVCONF\_ACCEPT\_RA\_PINFO] = 1, [DEVCONF\_ACCEPT\_RA\_RTR\_PREF] = 1, [DEVCONF\_RTR\_PROBE\_INTERVAL] = 60000, \\ [DEVCONF\_RTR\_PROBE\_INTERVAL] = 600
[DEVCONF_ACCEPT_RA_RT_INFO_MAX_PLEN] = 0, [DEVCONF_PROXY_NDP] = 0, [DEVCONF_OPTIMISTIC_DAD] = 0,
[DEVCONF_ACCEPT_SOURCE_ROUTE] = 0, [DEVCONF_MC_FORWARDING] = 0, [DEVCONF_DISABLE_IPV6] = 0, [DEVCONF_ACCEPT_DAD] =
-1, [DEVCONF\_FORCE\_TLLAO] = 0, [DEVCONF\_NDISC\_NOTIFY] = 0, [DEVCONF\_MLDV1\_UNSOLICITED\_REPORT\_INTERVAL] = 10000, \\ -1, [DEVCONF\_NDISC\_NOTIFY] = 0, [DEVCONF\_NDISC\_NOTIFY] = 0, \\ -1, [DEVCONF\_NDISC\_NOTIFY] = 0, [DEVCONF\_NDISC\_NOTIFY] = 0, \\ -1, [DEVCONF\_NDISC\_NOT
[DEVCONF\_MLDV2\_UNSOLICITED\_REPORT\_INTERVAL] = 1000, ...]], [\{nla\_len=308, nla\_type=IFLA\_INET6\_STATS\}, [[IPSTATS\_MIB\_NUM] = 38, nla\_type=IFLA\_INET6\_STATS], [[IPSTATS\_MIB\_NUM] = 38, nla\_type=IFLA\_INS\_TATS], [[IPSTATS\_MIB\_NUM] = 38, nla\_type=IFLA\_INS\_TATS], [[IPSTATS\_MIB\_NUM] = 38, nla\_type=IFLA\_INS\_TATS], [[IPSTATS\_MIB\_NUM] = 38, nla\_type=IFLA\_INS\_TATS], [[IPSTATS\_MIB\_TATS\_MIB\_TATS\_MIB\_TATS], [[IPSTATS\_MIB\_TATS\_MIB\_TATS\_MIB\_TATS\_MIB\_TATS\_MIB\_TATS\_MIB\_TATS\_MIB\_TATS\_MIB\_TATS\_MIB\_TATS\_MIB\_TATS\_MIB\_TATS\_MIB\_
[IPSTATS_MIB_INPKTS] = 0, [IPSTATS_MIB_INOCTETS] = 0, [IPSTATS_MIB_INDELIVERS] = 0, [IPSTATS_MIB_OUTFORWDATAGRAMS] = 0,
[IPSTATS_MIB_OUTPKTS] = 0, [IPSTATS_MIB_OUTOCTETS] = 0, [IPSTATS_MIB_INHDRERRORS] = 0, [IPSTATS_MIB_INTOOBIGERRORS] = 0,
[IPSTATS\_MIB\_INNOROUTES] = 0, \\ [IPSTATS\_MIB\_INADDRERRORS] = 0, \\ [IPSTATS\_MIB\_INUNKNOWNPROTOS] = 0, \\ [IPSTATS\_MIB\_INNOROUTES] = 0, \\ [IPSTATS\_MIB\_INNOROUT
[IPSTATS\_MIB\_INTRUNCATEDPKTS] = 0, \\ [IPSTATS\_MIB\_INDISCARDS] = 0, \\ [IPSTATS\_MIB\_OUTDISCARDS] = 0, \\ [IPSTATS\_MIB\_OUTNOROUTES] = 
= 0, [IPSTATS_MIB_REASMTIMEOUT] = 0, [IPSTATS_MIB_REASMREQDS] = 0, [IPSTATS_MIB_REASMOKS] = 0, [IPSTATS_MIB_REASMFAILS] = 0,
[IPSTATS MIB FRAGOKS] = 0, [IPSTATS MIB FRAGFAILS] = 0, [IPSTATS MIB FRAGCREATES] = 0, [IPSTATS MIB INMCASTPKTS] = 0,
[IPSTATS_MIB_OUTMCASTPKTS] = 0, [IPSTATS_MIB_INBCASTPKTS] = 0, [IPSTATS_MIB_OUTBCASTPKTS] = 0,
[IPSTATS_MIB_INMCASTOCTETS] = 0, [IPSTATS_MIB_OUTMCASTOCTETS] = 0, [IPSTATS_MIB_INBCASTOCTETS] = 0,
[IPSTATS\_MIB\_OUTBCASTOCTETS] = 0, \\ [IPSTATS\_MIB\_CSUMERRORS] = 0, \\ ...]], \\ [\{nla\_len=60, \\ nla\_type=IFLA\_INET6\_ICMP6STATS\}, \\ [IPSTATS\_MIB\_CSUMERRORS] = 0, \\ ...]], \\ [\{nla\_len=60, \\ nla\_type=IFLA\_INET6\_ICMP6STATS\}, \\ [IPSTATS\_MIB\_CSUMERRORS] = 0, \\ ...]], \\ [\{nla\_len=60, \\ nla\_type=IFLA\_INET6\_ICMP6STATS\}, \\ [IPSTATS\_MIB\_CSUMERRORS] = 0, \\ ...]], \\ [\{nla\_len=60, \\ nla\_type=IFLA\_INET6\_ICMP6STATS\}, \\ [IPSTATS\_MIB\_CSUMERRORS] = 0, \\ ...]], \\ [\{nla\_len=60, \\ nla\_type=IFLA\_INET6\_ICMP6STATS\}, \\ [IPSTATS\_MIB\_CSUMERRORS] = 0, \\ ...]], \\ [\{nla\_len=60, \\ nla\_type=IFLA\_INET6\_ICMP6STATS\}, \\ [IPSTATS\_MIB\_CSUMERRORS] = 0, \\ [IPSTATS\_MIB\_CSU
[[ICMP6_MIB_NUM] = 7, [ICMP6_MIB_INMSGS] = 0, [ICMP6_MIB_INERRORS] = 0, [ICMP6_MIB_OUTMSGS] = 0, [ICMP6_MIB_OUTERRORS] = 0,
[ICMP6_MIB_CSUMERRORS] = 0, [6 /* ICMP6_MIB_??? */] = 0]], [{nla_len=20, nla_type=IFLA_INET6_TOKEN}, inet_pton(AF_INET6, "::")],
[\{nla\_len=5, nla\_type=IFLA\_INET6\_ADDR\_GEN\_MODE\}, IN6\_ADDR\_GEN\_MODE\_EUI64]]]]], [\{nla\_len=36, nla\_type=IFLA\_MAP\}, \{mem\_start=0, nla\_type=IFLA
mem_end=0, base_addr=0, irq=0, dma=0, port=0}], ...]], [{nlmsg_len=884, nlmsg_type=RTM_NEWLINK, nlmsg_flags=NLM_F_MULTI,
nlmsg_seq=1741222075, nlmsg_pid=5174}, {ifi_family=AF_UNSPEC, ifi_type=ARPHRD_TUNNEL, ifi_index=if_nametoindex("tunl0"),
ifi flags=IFF NOARP, ifi change=0}, [[{nla len=10, nla type=IFLA IFNAME}, "tunl0"], [{nla len=8, nla type=IFLA TXQLEN}, 1000], [{nla len=5,
nla_type=IFLA_OPERSTATE}, 2], [{nla_len=5, nla_type=IFLA_LINKMODE}, 0], [{nla_len=8, nla_type=IFLA_MTU}, 1480], [{nla_type=IFLA_MTU}, 1480], [{nla_type=IFLA_M
nla_type=IFLA_MIN_MTU}, 0], [{nla_len=8, nla_type=IFLA_MAX_MTU}, 0], [{nla_len=8, nla_type=IFLA_GROUP}, 0], [{nla_type=IFLA_GROUP}, 0], [{nla_type=IFL
nla\_type=IFLA\_PROMISCUITY\}, 0], [\{nla\_len=8, nla\_type=0x3d /* IFLA\_???*/\}, "\x00\x00\x00"], [\{nla\_len=8, nla\_type=IFLA\_NUM\_TX\_QUEUES\}, nla\_type=IFLA\_NUM\_TX\_QUEUES], [\{nla\_len=8, nla\_type=IFLA\_NUM\_TX\_QUEUES], nla\_type=IFLA\_NUM\_TX\_QUEUES], [\{nla\_len=8, nla\_type=IFLA\_NUM\_TX\_QUEUES], nla\_type=IFLA\_NUM\_TX_QUEUES], nla_type=IFLA\_NUM\_TX_QUEUES], nla_type=IFLA\_NUM\_TX_QUEUES], nla_type=IFLA\_NUM\_TX_QUEUES], nla_type=IFLA\_NUM\_TX_QUEUES], nla_type=IFLA\_NUM\_TX_QUEUES], nla_type=IFLA\_NUM\_TX_QUEUES], nla_type=IFLA\_NUM\_TX_QUEUES], nla_type=IFLA\_NUM\_TX_QUEUES], nla_type=IFLA\_NUM\_TX_QU
1], [{nla_len=8, nla_type=IFLA_GSO_MAX_SEGS}, 65535], [{nla_len=8, nla_type=IFLA_GSO_MAX_SIZE}, 65536], [{nla_len=8, nla_type=0x3a/*
IFLA_??? */}, "\x00\x00\x01\x00"], [{nla_len=8, nla_type=0x3f/* IFLA_??? */}, "\x00\x00\x01\x00"], [{nla_len=8, nla_type=0x40 /* IFLA_??? */},
"\x00\x00\x01\x00"], [{nla_len=8, nla_type=0x3b /* IFLA_??? */}, "\x00\x00\x01\x00"], [{nla_len=8, nla_type=0x3c /* IFLA_??? */}, "\xff\xff\x00\x00"],
[\{nla\_len=8, nla\_type=IFLA\_NUM\_RX\_QUEUES\}, 1], [\{nla\_len=5, nla\_type=IFLA\_CARRIER\}, 1], [\{nla\_len=8, nla\_type=IFLA\_CARRIER\_CHANGES\}, 0], [\{nla\_len=8, nla\_type=IFLA\_NUM\_RX\_QUEUES\}, 1], [\{nla\_len=5, nla\_type=IFLA\_CARRIER\}, 1], [\{nla\_len=8, nla\_type=IFLA\_CARRIER], 1], [\{nla\_type=IFLA\_CARRIER], 1],
[{nla_len=8, nla_type=IFLA_CARRIER_UP_COUNT}, 0], [{nla_len=8, nla_type=IFLA_CARRIER_DOWN_COUNT}, 0], [{nla_len=5,
nla_type=IFLA_PROTO_DOWN}, 0], [{nla_len=8, nla_type=IFLA_ADDRESS}, 00:00:00:00], [{nla_len=8, nla_type=IFLA_BROADCAST}, 00:00:00:00],
[\{nla\_len=204, nla\_type=IFLA\_STATS64\}, \{rx\_packets=0, tx\_packets=0, rx\_bytes=0, tx\_bytes=0, tx\_errors=0, tx\_errors=0, rx\_dropped=0, tx\_dropped=0, tx\_dropp
multicast=0, collisions=0, rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_frifo_errors=0, rx_missed_errors=0,
tx_aborted_errors=0, tx_carrier_errors=0, tx_fifo_errors=0, tx_heartbeat_errors=0, tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}],
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[{nla_len=100, nla_type=IFLA_STATS}, {rx_packets=0, tx_packets=0, rx_bytes=0, tx_bytes=0, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0,
multicast=0, collisions=0, rx length errors=0, rx over errors=0, rx crc errors=0, rx frame errors=0, rx fifo errors=0, rx missed errors=0,
tx aborted errors=0, tx carrier errors=0, tx fifo errors=0, tx heartbeat errors=0, tx window errors=0, rx compressed=0, tx compressed=0, rx nohandler=0}],
[{nla len=12, nla type=IFLA XDP}, [{nla len=5, nla type=IFLA XDP ATTACHED}, XDP ATTACHED NONE]], [{nla len=116,
nla type=IFLA LINKINFO}, [[{nla len=9, nla type=IFLA INFO KIND}, "ipip"], [{nla len=100, nla type=IFLA INFO DATA},
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ifi\_index=if\_nameto index("gre0"), ifi\_flags=IFF\_NOARP, ifi\_change=0\}, [[\{nla\_len=9, nla\_type=IFLA\_IFNAME\}, "gre0"], [\{nla\_len=8, nla\_type=IFLA\_IFNAME], "gre0"], [\{nla\_type=IFLA\_IFNAME], "gre0"], [\{nla\_type=IFLA\_TYPA], [\{nla\_type=IFLA\_TYPA]
nla_type=IFLA_TXQLEN}, 1000], [{nla_len=5, nla_type=IFLA_OPERSTATE}, 2], [{nla_len=5, nla_type=IFLA_LINKMODE}, 0], [{nla_len=8, nla_type=IFLA_DPERSTATE}, 2], [{nla_len=5, nla_type=IFLA_LINKMODE}, 0], [{nla_len=8, nla_type=IFLA_DPERSTATE}, 2], [{nla_len=5, nla_type=IFLA_LINKMODE}, 0], [{nla_len=8, nla_type=IFLA_DPERSTATE}, 2], [{nla_len=5, nla_type=IFLA_DPERSTATE}, 2], [{nla_type=IFLA_DPERSTATE}, 2], [
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\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xspace{1.00}\xs
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00:00:00:00:00], [{nla_len=8, nla_type=IFLA_BROADCAST}, 00:00:00:00:00], [{nla_len=204, nla_type=IFLA_STATS64}, {rx_packets=0, tx_packets=0, rx_bytes=0, rx_bytes=
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rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0, tx_fifo_errors=0, tx_heartbeat_errors=0,
tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=100, nla_type=IFLA_STATS}, {rx_packets=0, tx_packets=0, tx_p
rx_bytes=0, tx_bytes=0, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0, rx_length_errors=0, rx_over_errors=0,
rx crc errors=0, rx frame errors=0, rx fifo errors=0, rx missed errors=0, tx aborted errors=0, tx carrier errors=0, tx fifo errors=0, tx heartbeat errors=0,
tx window errors=0, rx compressed=0, tx compressed=0, rx nohandler=0}], [{nla len=12, nla type=IFLA XDP}, [{nla len=5,
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"gre"], [{nla_len=132, nla_type=IFLA_INFO_DATA},
nla type=IFLA LINK}, 0], [{nla len=9, nla type=IFLA QDISC}, "noop"], ...]]], iov len=4096}], msg iovlen=1, msg controllen=0, msg flags=0}, 0) = 3228
```

 $[pid 5155] < ... epoll_ctl resumed >) = 0$

[pid 5174] recvmsg(16, <unfinished ...>

[pid 5173] epoll ctl(7, EPOLL CTL MOD, 9, {events=EPOLLIN|EPOLLOUT, data={u32=2080379952, u64=281472762123312}} <unfinished ...>

```
[pid 5174] <... recvmsg resumed>{msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12,
msg\_iov = [[iov\_base = [[f.nlmsg\_len = 1592, nlmsg\_type = RTM\_NEWLINK, nlmsg\_flags = NLM\_F\_MULTI, nlmsg\_seq = 1741222075, nlmsg\_pid = 5174], nlmsg\_flags = nlmsg\_flags =
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[[{nla_len=12, nla_type=IFLA_IFNAME}, "gretap0"], [{nla_len=8, nla_type=IFLA_TXQLEN}, 1000], [{nla_len=5, nla_type=IFLA_OPERSTATE}, 2],
nla\_type=IFLA\_MAX\_MTU\}, 0], [\{nla\_len=8, nla\_type=IFLA\_GROUP\}, 0], [\{nla\_len=8, nla\_type=IFLA\_PROMISCUITY\}, 0], [\{nla\_len=8, nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla\_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/*nla_type=0x3d/
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\label{eq:control_control_control_control} $$ \xon(x00) \times 01 \times 0^{-1}, [\{nla\_len=8, nla\_type=0x3c /* IFLA\_???*/\}, \xon(x00) \, [\{nla\_len=8, nla\_type=IFLA\_NUM\_RX\_QUEUES\}, 1], [\{nla\_len=5, nla\_type=0x3c /* IFLA\_???*/], \xon(x00) \xon(x0
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00:00:00:00:00:00:00], [{nla_len=10, nla_type=IFLA_BROADCAST}, ff:ff:ff:ff:ff:ff:ff], [{nla_len=204, nla_type=IFLA_STATS64}, {rx_packets=0, tx_packets=0, tx
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rx_crc_errors=0, rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0, tx_fifo_errors=0, tx_heartbeat_errors=0,
tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=100, nla_type=IFLA_STATS}, {rx_packets=0, tx_packets=0, tx_p
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[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5174] recvmsg(16, <unfinished ...>
```

 $[pid 5173] < ... epoll_ctl resumed >) = 0$

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collisions=0, rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0,
tx carrier errors=0, tx fifo errors=0, tx heartbeat errors=0, tx window errors=0, rx compressed=0, rx compressed=0, rx nohandler=0}], [{nla len=100,
nla_type=IFLA_STATS}, {rx_packets=0, tx_packets=0, rx_bytes=0, tx_bytes=0, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0,
collisions=0, rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0,
tx_carrier_errors=0, tx_fifo_errors=0, tx_heartbeat_errors=0, tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=12,
nla_type=IFLA_XDP}, [{nla_len=5, nla_type=IFLA_XDP_ATTACHED}, XDP_ATTACHED_NONE]], [{nla_len=92, nla_type=IFLA_LINKINFO},
[[{nla_len=9, nla_type=IFLA_INFO_KIND}, "vti6"], [{nla_len=76, nla_type=IFLA_INFO_DATA},
[{nla_len=20, nla_type=IFLA_PERM_ADDRESS}, 1a:8b:b1:5c:4b:8d:00], [{nla_len=8, nla_type=IFLA_LINK}, 0], ...]], [{nlmsg_len=1600,
nlmsg type=RTM NEWLINK, nlmsg flags=NLM F MULTI, nlmsg seq=1741222075, nlmsg pid=5174}, {ifi family=AF UNSPEC, ifi type=ARPHRD SIT,
ifi index=if nametoindex("sit0"), ifi flags=IFF NOARP, ifi change=0}, [[{nla len=9, nla type=IFLA IFNAME}, "sit0"], [{nla len=8,
nla_type=IFLA_TXQLEN}, 1000], [{nla_len=5, nla_type=IFLA_OPERSTATE}, 2], [{nla_len=5, nla_type=IFLA_LINKMODE}, 0], [{nla_len=8, nla_type=IFLA_LINKMODE}, 0], [{nla_type=IFLA_LINKMODE}, 0], [{nla_type
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nla_type=IFLA_GROUP}, 0], [{nla_len=8, nla_type=IFLA_PROMISCUITY}, 0], [{nla_len=8, nla_type=0x3d /* IFLA_??? */}, "\x00\x00\x00\x00\x00"],
[{nla len=8, nla type=IFLA NUM TX QUEUES}, 1], [{nla len=8, nla type=IFLA GSO MAX SEGS}, 65535], [{nla len=8,
nla_type=IFLA_GSO_MAX_SIZE}, 65536], [{nla_len=8, nla_type=0x3a /* IFLA_??? */}, "\x00\x00\x01\x00"], [{nla_len=8, nla_type=0x3f /* IFLA_??? */},
"\x00\x00\x01\x00"], [{nla len=8, nla type=0x40 /* IFLA ??? */}, "\x00\x00\x00\x00"], [{nla len=8, nla type=0x3b /* IFLA ??? */}, "\x00\x00\x01\x00"],
[{nla len=8, nla type=0x3c /* IFLA ??? */}, "\xff\xff\x00\x00"], [{nla len=8, nla type=IFLA NUM RX QUEUES}, 1], [{nla len=5,
nla type=IFLA CARRIER}, 1], [{nla len=8, nla type=IFLA CARRIER CHANGES}, 0], [{nla len=8, nla type=IFLA CARRIER UP COUNT}, 0],
[{nla len=8, nla type=IFLA CARRIER DOWN COUNT}, 0], [{nla len=5, nla type=IFLA PROTO DOWN}, 0], [{nla len=8, nla type=IFLA ADDRESS},
00:00:00:00], [{nla_len=8, nla_type=IFLA_BROADCAST}, 00:00:00:00], [{nla_len=204, nla_type=IFLA_STATS64}, {rx_packets=0, tx_packets=0, rx_bytes=0, tx_packets=0, tx_packet
tx_bytes=0, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0, rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0,
rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0, tx_fifo_errors=0, tx_heartbeat_errors=0,
tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=100, nla_type=IFLA_STATS}, {rx_packets=0, tx_packets=0, tx_p
rx_bytes=0, tx_bytes=0, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0, rx_length_errors=0, rx_over_errors=0,
rx_crc_errors=0, rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0, tx_fifo_errors=0, tx_heartbeat_errors=0,
tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=12, nla_type=IFLA_XDP}, [{nla_len=5,
nla\_type=IFLA\_XDP\_ATTACHED\}, XDP\_ATTACHED\_NONE]], [\{nla\_len=164, nla\_type=IFLA\_LINKINFO\}, [[\{nla\_len=8, nla\_type=IFLA\_INFO\_KIND\}, [\{nla\_len=8, nla\_type=IFLA\_INFO\_KIND\}, [\{nla\_len=164, nla\_type=IFLA\_INFO\_KIND\}, [\{nla\_len=8, nla\_type=IFLA\_INFO\_KIND\}, [\{nla\_len=164, nla\_type=IFLA\_INFO\_KIND\}, [\{nla\_len=164, nla\_type=IFLA\_INFO\_KIND\}, [\{nla\_len=164, nla\_type=IFLA\_INFO\_KIND\}, [\{nla\_len=164, nla\_type=IFLA\_INFO\_KIND\}, [\{nla\_len=164, nla\_type=IFLA\_INFO\_KIND\}, [\{nla\_len=164, nla\_type=IFLA\_INFO\_KIND], [\{nla\_type=IFLA\_INFO\_KIND], [\{nla\_type=IFLA\_INFO\_
"sit"], [{nla_len=152, nla_type=IFLA_INFO_DATA},
\label{eq:control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_control_co
nla\_type=IFLA\_LINK\}, 0], [\{nla\_len=9, nla\_type=IFLA\_QDISC\}, "noop"], ...]]], iov\_len=4096\}], \\ msg\_iovlen=1, \\ msg\_controllen=0, \\ msg\_flags=0\}, 0) = 3176, \\ msg\_iovlen=1, \\ msg\_controllen=0, \\ msg\_flags=0\}, 0) = 3176, \\ msg\_iovlen=1, \\ msg\_controllen=0, \\ msg\_flags=0\}, 0) = 3176, \\ msg\_iovlen=1, \\ 
[pid 5173] recvfrom(9, <unfinished ...>
```

[pid 5174] recvmsg(16, <unfinished ...>

```
[pid 5174] <... recvmsg resumed>{msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12,
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{ifi family=AF UNSPEC, ifi type=ARPHRD TUNNEL6, ifi index=if nametoindex("ip6tnl0"), ifi flags=IFF NOARP, ifi change=0}, [[{nla len=12,
nla type=IFLA IFNAME}, "ip6tnl0"], [{nla len=8, nla type=IFLA TXQLEN}, 1000], [{nla len=5, nla type=IFLA OPERSTATE}, 2], [{nla len=5,
nla type=IFLA LINKMODE}, 0], [{nla len=8, nla type=IFLA MTU}, 1452], [{nla len=8, nla type=IFLA MIN MTU}, 68], [{nla len=8,
nla_type=IFLA_MAX_MTU}, 65535], [{nla_len=8, nla_type=IFLA_GROUP}, 0], [{nla_len=8, nla_type=IFLA_PROMISCUITY}, 0], [{nla_len=8, nla_type=IFLA_PROMISCUITY},
nla type=0x3d/* IFLA ??? */}, "\x00\x00\x00\x00"], [{nla len=8, nla type=IFLA NUM TX QUEUES}, 1], [{nla len=8, nla type=1FLA NUM TX QUEUES}, 1], [{nla len=8, nla type
nla_type=IFLA_GSO_MAX_SEGS}, 65535], [{nla_len=8, nla_type=IFLA_GSO_MAX_SIZE}, 65536], [{nla_len=8, nla_type=0x3a /* IFLA_??? */},
"\x00\x00\x01\x00"], [\{nla\_len=8, nla\_type=0x3f/* IFLA\_???*/\}, "\x00\x00\x01\x00"], [\{nla\_len=8, nla\_type=0x40/* IFLA\_???*/\}, "\x00\x00\x01\x00"], [\{nla\_len=8, nla\_type=0x40/* IFLA\_???*/], "\x00\x00\x00"], [\{nla\_len=8, nla\_type=0x40/* IFLA\_???*/], "\x00\x00"], [\{nla\_len=8, nla\_type=0x40/* IFLA\_????*/], "\x
nla_type=IFLA_NUM_RX_QUEUES}, 1], [{nla_len=5, nla_type=IFLA_CARRIER}, 1], [{nla_len=8, nla_type=IFLA_CARRIER_CHANGES}, 0], [{nla_type=IFLA_CARRIER_CHANGES}, 0], [{nla_type=IFLA_CARRIE
nla_type=IFLA_CARRIER_UP_COUNT}, 0], [{nla_len=8, nla_type=IFLA_CARRIER_DOWN_COUNT}, 0], [{nla_len=5, nla_type=IFLA_PROTO_DOWN},
0], [{nla_len=20, nla_type=IFLA_ADDRESS}, 00:00:00:00:00:00:00:00:00:], [{nla_len=20, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:00:], [{nla_len=204, nla_type=IFLA_BROADCAST}, 00:00:], [{nla_type=IFLA_BROADCAST}, 00:00:], [{nla_type=IFLA_BROADCAST}, 00:00:], [{nla_type
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collisions=0, rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0,
tx carrier errors=0, tx fifo errors=0, tx heartbeat errors=0, tx window errors=0, rx compressed=0, rx compressed=0, rx nohandler=0}], [{nla len=100,
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collisions=0, rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0,
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nla_type=IFLA_XDP}, [{nla_len=5, nla_type=IFLA_XDP_ATTACHED}, XDP_ATTACHED_NONE]], [{nla_len=148, nla_type=IFLA_LINKINFO},
[[{nla_len=11, nla_type=IFLA_INFO_KIND}, "ip6tnl"], [{nla_len=132, nla_type=IFLA_INFO_DATA},
[][] (308) \times 200 \times 201 \times 200 \times 200
[{nla len=20, nla type=IFLA PERM ADDRESS}, 72:6a:24:6b:84:c5:00], [{nla len=8, nla type=IFLA LINK}, 0], ...]], [{nlmsg len=1652,
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ifi type=ARPHRD IP6GRE, ifi index=if nametoindex("ip6gre0"), ifi flags=IFF NOARP, ifi change=0}, [[{nla len=12, nla type=IFLA IFNAME},
"ip6gre0"], [{nla_len=8, nla_type=IFLA_TXQLEN}, 1000], [{nla_len=5, nla_type=IFLA_OPERSTATE}, 2], [{nla_len=5, nla_type=IFLA_LINKMODE}, 0],
nla type=IFLA GROUP}, 0], [{nla len=8, nla type=IFLA PROMISCUITY}, 0], [{nla len=8, nla type=0x3d /* IFLA ???? */}, "\x00\x00\x00\x00"],
[{nla len=8, nla type=IFLA NUM TX QUEUES}, 1], [{nla len=8, nla type=IFLA GSO MAX SEGS}, 65535], [{nla len=8,
nla_type=IFLA_GSO_MAX_SIZE}, 65536], [{nla_len=8, nla_type=0x3a /* IFLA_??? */}, "\x00\x00\x00\x00"], [{nla_len=8, nla_type=0x3f /* IFLA_??? */},
"\x00\x00\x01\x00"], [{nla len=8, nla type=0x40 /* IFLA ??? */}, "\x00\x00\x00\x00"], [{nla len=8, nla type=0x3b /* IFLA ??? */}, "\x00\x00\x01\x00"],
[{nla_len=8, nla_type=0x3c/* IFLA_??? */}, "\xff\xff\x00\x00\", [{nla_len=8, nla_type=IFLA_NUM_RX_QUEUES}, 1], [{nla_len=5, nla_type=1FLA_NUM_RX_QUEUES}, 1], [{nla_len=5, nla_type=1FLA_NUM_RX_QUEUES}, 1], [{nla_len=5, nla_type=1FLA_NUM_RX_QUEUES}, 1], [{nla_len=5, nla_type=1FLA_NUM_RX_QUEUES}, 1], [{nla_len=5, nla_type=1FLA_NUM_RX_QUEUES}], [{nla_len=5, nla_type=1FLA_NUM_
nla type=IFLA CARRIER}, 1], [{nla len=8, nla type=IFLA CARRIER CHANGES}, 0], [{nla len=8, nla type=IFLA CARRIER UP COUNT}, 0],
[{nla len=8, nla type=IFLA CARRIER DOWN COUNT}, 0], [{nla len=5, nla type=IFLA PROTO DOWN}, 0], [{nla len=20, nla type=IFLA ADDRESS},
tx_packets=0, rx_bytes=0, tx_bytes=0, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0, rx_length_errors=0, rx_over_errors=0,
rx_crc_errors=0, rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0, tx_fifo_errors=0, tx_heartbeat_errors=0,
tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=100, nla_type=IFLA_STATS}, {rx_packets=0, tx_packets=0, tx_p
rx_bytes=0, tx_bytes=0, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0, rx_length_errors=0, rx_over_errors=0,
rx_crc_errors=0, rx_frame_errors=0, rx_fifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0, tx_fifo_errors=0, tx_heartbeat_errors=0,
tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=12, nla_type=IFLA_XDP}, [{nla_len=5,
nla_type=IFLA_XDP_ATTACHED}, XDP_ATTACHED_NONE]], [{nla_len=172, nla_type=IFLA_LINKINFO}, [[{nla_len=11, nla_type=IFLA_INFO_KIND},
"ip6gre"], [{nla len=156, nla type=IFLA INFO DATA},
\label{eq:warding} $$ w_0 = 0.00 \times 
[{nla_len=20, nla_type=IFLA_PERM_ADDRESS}, 06:d1:90:f8:48:fb:00], [{nla_len=8, nla_type=IFLA_LINK}, 0], ...]]], iov_len=4096}], msg_iovlen=1,
msg\_controllen=0, msg\_flags=0\}, 0) = 3280
[pid 5173] recvfrom(9, <unfinished ...>
```

[pid 5174] recvmsg(16, <unfinished ...>

[pid 5173] <... recvfrom resumed>0xffff7c003d28, 8192, 0, NULL, NULL) = -1 EAGAIN (Resource temporarily unavailable)

```
msg iov=[{iov base=[{nlmsg len=1468, nlmsg type=RTM NEWLINK, nlmsg flags=NLM F MULTI, nlmsg seq=1741222075, nlmsg pid=5174},
{ifi family=AF UNSPEC, ifi type=ARPHRD ETHER, ifi index=if nametoindex("eth0"),
ifi flags=IFF UP|IFF BROADCAST|IFF RUNNING|IFF MULTICAST|IFF LOWER UP, ifi change=0}, [[ fnla len=9, nla type=IFLA IFNAME}, "eth0"],
[{nla len=8, nla type=IFLA TXQLEN}, 0], [{nla len=5, nla type=IFLA OPERSTATE}, 6], [{nla len=5, nla type=IFLA LINKMODE}, 0], [{nla len=8,
nla_type=IFLA_MTU}, 65535], [{nla_len=8, nla_type=IFLA_MIN_MTU}, 68], [{nla_len=8, nla_type=IFLA_MAX_MTU}, 65535], [{nla_type=IFLA_MAX_MTU}, 65535], [{nla
nla_type=IFLA_GROUP}, 0], [{nla_len=8, nla_type=IFLA_PROMISCUITY}, 0], [{nla_len=8, nla_type=0x3d /* IFLA_??? */}, "\x00\x00\x00\x00\x00"],
[{nla_len=8, nla_type=IFLA_NUM_TX_QUEUES}, 10], [{nla_len=8, nla_type=IFLA_GSO_MAX_SEGS}, 65535], [{nla_len=8, nla_type=IFLA_GSO_MAX_SEGS}], [{nla_len=8, nla_type=IFLA_GSO_MAX_S
nla_type=IFLA_GSO_MAX_SIZE}, 65536], [{nla_len=8, nla_type=0x3a /* IFLA_??? */}, "\x00\x00\x00\x00"], [{nla_len=8, nla_type=0x3f /* IFLA_??? */},
"\x00\x00\x01\x00"], [\{nla\_len=8, nla\_type=0x40 \/* IFLA\_???\ */\}, "\x00\x00\x01\x00"], [\{nla\_len=8, nla\_type=0x3b \/* IFLA\_???\ */\}, "\xf8\xff\x07\x00"], [\{nla\_len=8, nla\_type=0x3b \/* IFLA\_???\ */], "\xf8\xf8\xf8\xf8\x07\x00"], [\{nla\_len=8, nla\_type=0x3b \/* IFLA\_???\ */], "\xf8\xf8\xf8\x07\x00"], [\{nla\_len=8, nla\_type=0x3b \/* IFLA\_???\ */], "\xf8\xf8\xf8\x07\x00"], [\{nla\_len=8, nla\_type=0x3b \/* IFLA\_???\ */], "\xf8\xf8\x6\x00"], [\{nla\_len=8, nla\_type=0x3b \/* IFLA\_???\ */], "\xf8\x6\x00"], [\{nla\_len=8, nla\_type=0x3b \/* IFLA\_???\ */], "\xf8\x6\x00"], [\{nla\_len=8, nla\_type=0x3b \/* IFLA\_??\ */], "\xf8\x6\x00"], [\{nla\_len=8, nla\_type=0x3b \/* IFLA\_?\ */], "\xf8\x6\x6\x00"], [\{nla\_len=8, nla\_type=0
[{nla_len=8, nla_type=0x3c /* IFLA_??? */}, "\xff\xff\x00\x00\], [{nla_len=8, nla_type=IFLA_NUM_RX_QUEUES}, 10], [{nla_len=5,
nla_type=IFLA_CARRIER}, 1], [{nla_len=8, nla_type=IFLA_CARRIER_CHANGES}, 2], [{nla_len=8, nla_type=IFLA_CARRIER_UP_COUNT}, 1],
[{nla_len=8, nla_type=IFLA_CARRIER_DOWN_COUNT}, 1], [{nla_len=5, nla_type=IFLA_PROTO_DOWN}, 0], [{nla_len=10, nla_type=IFLA_ADDRESS},
02:42:ac:11:00:03], [{nla_len=10, nla_type=IFLA_BROADCAST}, ff:ff:ff:ff:ff:ff:ff], [{nla_len=204, nla_type=IFLA_STATS64}, {rx_packets=3354,
tx_packets=1753, rx_bytes=51454683, tx_bytes=150138, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0, rx_length_errors=0,
rx over errors=0, rx crc errors=0, rx frame errors=0, rx fifo errors=0, rx missed errors=0, tx aborted errors=0, tx carrier errors=0, tx fifo errors=0,
tx_heartbeat_errors=0, tx_window_errors=0, rx_compressed=0, tx_compressed=0, rx_nohandler=0}], [{nla_len=100, nla_type=IFLA_STATS},
{rx_packets=3354, tx_packets=1753, rx_bytes=51454683, tx_bytes=150138, rx_errors=0, tx_errors=0, rx_dropped=0, tx_dropped=0, multicast=0, collisions=0,
rx_length_errors=0, rx_over_errors=0, rx_crc_errors=0, rx_frame_errors=0, rx_frifo_errors=0, rx_missed_errors=0, tx_aborted_errors=0, tx_carrier_errors=0,
tx fifo errors=0, tx heartbeat errors=0, tx window errors=0, rx compressed=0, rx compressed=0, rx nohandler=0}], [{nla len=12, nla type=IFLA XDP},
[{nla_len=5, nla_type=IFLA_XDP_ATTACHED}, XDP_ATTACHED_NONE]], [{nla_len=16, nla_type=IFLA_LINKINFO}, [{nla_len=9,
nla_type=IFLA_INFO_KIND}, "veth"]], [{nla_len=8, nla_type=IFLA_LINK_NETNSID}, 0], [{nla_len=8, nla_type=IFLA_LINK}, 20], ...]], iov_len=4096}],
msg_iovlen=1, msg_controllen=0, msg_flags=0}, 0) = 1468
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5174] recvmsg(16, <unfinished ...>
[pid 5173] < ... epoll pwait resumed>[{events=EPOLLOUT, data={u32=2080379952, u64=281472762123312}}], 256, 29987, NULL, 8) = 1
[pid 5174] <... recvmsg resumed>{msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12,
msg_iov=[{iov_base=[{nlmsg_len=20, nlmsg_type=NLMSG_DONE, nlmsg_flags=NLM_F_MULTI, nlmsg_seq=1741222075, nlmsg_pid=5174}, 0],
iov_len=4096}], msg_iovlen=1, msg_controllen=0, msg_flags=0}, 0) = 20
[pid 5174] sendto(16, [{nlmsg len=20, nlmsg type=RTM GETADDR, nlmsg flags=NLM F REQUEST|NLM F DUMP, nlmsg seq=1741222076,
nlmsg_pid=0}, {ifa_family=AF_UNSPEC, ...}], 20, 0, {sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, 12 <unfinished ...>
[pid 5173] <... sendto resumed>)
                                                                                   = 53
[pid 5155] <... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080381392, u64=281472762124752}}], 256, 29985, NULL, 8) = 1
[pid 5174] <... sendto resumed>)
                                                                                   = 20
[pid 5173] epoll pwait(7, <unfinished ...>
[pid 5174] recvmsg(16, <unfinished ...>
[pid 5155] recvfrom(11, <unfinished ...>
[pid 5174] <... recvmsg resumed>{msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12,
msg_iov=[{iov_base=[[{nlmsg_len=76, nlmsg_type=RTM_NEWADDR, nlmsg_flags=NLM_F_MULTI, nlmsg_seq=1741222076, nlmsg_pid=5174},
{ifa_family=AF_INET, ifa_prefixlen=8, ifa_flags=IFA_F_PERMANENT, ifa_scope=RT_SCOPE_HOST, ifa_index=if_nametoindex("lo")}, [[{nla_len=8, ifa_family=AF_INET, ifa_index=if_nametoindex("lo")}, [[{nla_len=8, ifa_index=if_nametoindex("lo")}, [{nla_len=8, ifa_index=if_nametoindex("lo")}, [{nla_len=
nla_type=IFA_ADDRESS}, inet_addr("127.0.0.1")], [{nla_len=8, nla_type=IFA_LOCAL}, inet_addr("127.0.0.1")], [{nla_len=7, nla_type=IFA_LABEL}, "lo"],
[{nla_len=8, nla_type=IFA_FLAGS}, IFA_F_PERMANENT], [{nla_len=20, nla_type=IFA_CACHEINFO}, {ifa_prefered=4294967295, ifa_valid=4294967295,
cstamp=14484, tstamp=14484}]]], [{nlmsg_len=88, nlmsg_type=RTM_NEWADDR, nlmsg_flags=NLM_F_MULTI, nlmsg_seq=1741222076, nlmsg_pid=5174},
{ifa_family=AF_INET, ifa_prefixlen=16, ifa_flags=IFA_F_PERMANENT, ifa_scope=RT_SCOPE_UNIVERSE, ifa_index=if_nametoindex("eth0")},
[[{nla_len=8, nla_type=IFA_ADDRESS}, inet_addr("172.17.0.3")], [{nla_len=8, nla_type=IFA_LOCAL}, inet_addr("172.17.0.3")], [{nla_type=IFA_LOCAL}, inet_addr("172.17.0.3")], [{nla_type=IFA_LOCAL}, inet_addr("172.17.0.3")], [{nla_type=IFA_LOCAL}, inet_addr("172.17.0.3")], [{nla_type=IFA_LOCAL}, inet_addr("172.17.0.3")], [{nla_type=IFA_LOCAL}, inet_addr("172.17.0.3")]
nla_type=IFA_BROADCAST}, inet_addr("172.17.255.255")], [{nla_len=9, nla_type=IFA_LABEL}, "eth0"], [{nla_len=8, nla_type=IFA_FLAGS},
IFA F PERMANENT], [{nla len=20, nla type=IFA CACHEINFO}, {ifa prefered=4294967295, ifa valid=4294967295, cstamp=14490, tstamp=14490}]]],
[{nlmsg_len=80, nlmsg_type=RTM_NEWADDR, nlmsg_flags=NLM_F_MULTI, nlmsg_seq=1741222076, nlmsg_pid=5174}, {ifa_family=AF_INET6,
ifa_prefixlen=128, ifa_flags=IFA_F_PERMANENT, ifa_scope=RT_SCOPE_HOST, ifa_index=if_nametoindex("lo")}, [[{nla_len=20,
nla_type=IFA_ADDRESS}, inet_pton(AF_INET6, "::1")], [{nla_len=20, nla_type=IFA_CACHEINFO}, {ifa_prefered=4294967295, ifa_valid=4294967295,
cstamp=14484, tstamp=14484}], [{nla_len=8, nla_type=IFA_FLAGS}, IFA_F_PERMANENT], [{nla_len=5, nla_type=0xb /* IFA_??? */}, "\x01"]]]],
iov_len=4096}], msg_iovlen=1, msg_controllen=0, msg_flags=0}, 0) = 244
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080379952, u64=281472762123312}}], 256, 29986, NULL, 8) = 1
[pid 5174] recvmsg(16, <unfinished ...>
```

[pid 5174] <... recvmsg resumed>{msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12,

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[pid 5174] <... recvmsg resumed>{msg_name={sa_family=AF_NETLINK, nl_pid=0, nl_groups=00000000}, msg_namelen=12,
msg_iov=[{iov_base=[{nlmsg_len=20, nlmsg_type=NLMSG_DONE, nlmsg_flags=NLM_F_MULTI, nlmsg_seq=1741222076, nlmsg_pid=5174}, 0],
iov_len=4096}], msg_iovlen=1, msg_controllen=0, msg_flags=0}, 0) = 20
[pid 5173] sendto(9, "\4&\5READY\vSocket-Type\0\0\0\3REQ\10Iden"..., 40, 0, NULL, 0 <unfinished ...>
[pid 5174] close(16 < unfinished ... >
[pid 5155] epoll ctl(8, EPOLL CTL MOD, 11, {events=EPOLLIN|EPOLLOUT, data={u32=2080381392, u64=281472762124752}} < unfinished ...>
[pid 5174] <... close resumed>)
[pid 5173] <... sendto resumed>)
                                  =40
[pid 5174] socket(AF INET, SOCK STREAM|SOCK CLOEXEC, IPPROTO TCP <unfinished ...>
[pid 5155] < ... epoll_ctl resumed >) = 0
[pid 5174] <... socket resumed>)
                                  = 16
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5174] setsockopt(16, SOL_SOCKET, SO_REUSEADDR, [1], 4 <unfinished ...>
[pid 5155] recvfrom(11, <unfinished ...>
[pid 5174] < ... setsockopt resumed>) = 0
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080379952, u64=281472762123312}}], 256, 29984, NULL, 8) = 1
[pid 5174] bind(16, {sa_family=AF_INET, sin_port=htons(5552), sin_addr=inet_addr("127.0.0.1")}, 16 < unfinished ...>
[pid 5155] < ... recvfrom resumed>"\4&\5READY\vSocket-Type\0\0\0\0\3REQ\10Iden" ..., 8192, 0, NULL, NULL) = 40
[pid 5174] <... bind resumed>)
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 9, {events=EPOLLIN, data={u32=2080379952, u64=281472762123312}} <unfinished ...>
[pid 5174] listen(16, 100 < unfinished ... >
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5174] <... listen resumed>)
[pid 5173] <... epoll ctl resumed>) = 0
[pid 5174] getsockname(16, <unfinished ...>
[pid 5155] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080381392, u64=281472762124752}}], 256, 29979, NULL, 8) = 1
[pid 5174] < ... getsockname resumed> {sa_family=AF_INET, sin_port=htons(5552), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5174] getsockname(16, <unfinished ...>
[pid 5155] getpid( <unfinished ...>
[pid\ 5174] < ...\ getsockname\ resumed > \{sa\_family = AF\_INET,\ sin\_port = htons(5552),\ sin\_addr = inet\_addr("127.0.0.1")\},\ [128 \Rightarrow 16]) = 0
[pid 5155] <... getpid resumed>) = 5153
[pid 5174] getpid( <unfinished ...>
[pid 5155] write(9, "\1\0\0\0\0\0\0\0", 8 <unfinished ...>
[pid 5174] <... getpid resumed>)
                                = 5174
[pid 5155] <... write resumed>)
[pid 5153] <... ppoll resumed>)
                                 = 1 ([{fd=9, revents=POLLIN}])
[pid 5174] write(13, "\1\0\0\0\0\0\0\0\0", 8 <unfinished ...>
```

```
[pid 5155] futex(0xffff846277a4, FUTEX_WAKE_PRIVATE, 2147483647 <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5176] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=3664149216, u64=187650785311456}}], 256, -1, NULL, 8) = 1
[pid 5174] <... write resumed>)
                                = 8
[pid 5155] < ... futex resumed>)
[pid 5176] getpid( <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5153] <... getpid resumed>) = 5153
[pid 5176] <... getpid resumed>)
                                 =5174
[pid 5174] <... getpid resumed>) = 5174
[pid 5155] futex(0xffff846277b0, FUTEX_WAKE_PRIVATE, 2147483647 <unfinished ...>
[pid 5176] ppoll([{fd=13, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5174] write(15, "\1\0\0\0\0\0\0\0\0", 8 <unfinished ...>
[pid 5153] read(9, <unfinished ...>
[pid 5176] <... ppoll resumed>)
                               = 1 ([{fd=13, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5174] <... write resumed>)
                                = 8
[pid 5155] <... futex resumed>)
                                = 0
[pid 5176] getpid( <unfinished ...>
[pid 5174] write(1, "Compute Node 2 started, listenin"..., 58 <unfinished ...>
[pid 5153] <... read resumed>"\1\0\0\0\0\0\0\0\0", 8) = 8
[pid 5176] <... getpid resumed>) = 5174
[pid 5174] <... write resumed>)
                                = 58
[pid 5155] sendto(11, "\4\31\5READY\vSocket-Type\0\0\0\0\3REP", 27, 0, NULL, 0 < unfinished ...>
[pid 5176] read(13, <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5176] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\", 8) = 8
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080379952, u64=281472762123312}}], 256, 29983, NULL, 8) = 1
[pid 5155] <... sendto resumed>) = 27
[pid 5176] epoll_ctl(14, EPOLL_CTL_ADD, 16, {events=0, data={u32=2080380736, u64=281472762124096}} <unfinished ...>
[pid 5174] ppoll([{fd=15, events=POLLIN}], 1, NULL, NULL, 0 <unfinished ...>
[pid 5173] recvfrom(9, <unfinished ...>
[pid 5153] <... getpid resumed>) = 5153
[pid 5176] < ... epoll_ctl resumed >) = 0
[pid 5174] <... ppoll resumed>) = 1 ([{fd=15, revents=POLLIN}])
```

```
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5176] epoll ctl(14, EPOLL CTL MOD, 16, {events=EPOLLIN, data={u32=2080380736, u64=281472762124096}} <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 9, {events=EPOLLIN|EPOLLOUT, data={u32=2080379952, u64=281472762123312}} < unfinished ...>
[pid 5153] write(7, "\1\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5176] <... epoll_ctl resumed>) = 0
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] < ... epoll_ctl resumed >) = 0
[pid 5155] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080381392, u64=281472762124752}}], 256, -1, NULL, 8) = 1
[pid 5176] getpid( <unfinished ...>
[pid 5174] read(15, <unfinished ...>
[pid 5173] getpid( <unfinished ...>
[pid 5153] <... write resumed>) = 8
[pid 5176] <... getpid resumed>) = 5174
[pid 5174] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\8) = 8
[pid 5173] <... getpid resumed>) = 5151
[pid 5155] epoll_ctl(8, EPOLL_CTL_MOD, 11, {events=EPOLLIN, data={u32=2080381392, u64=281472762124752}} <unfinished ...>
[pid 5176] ppoll([{fd=13, events=POLLIN}], 1, {tv sec=0, tv nsec=0}, NULL, 0 < unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5173] write(8, "\1\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5176] < ... ppoll resumed >) = 0 (Timeout)
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] <... write resumed>)
[pid 5155] < ... epoll_ctl resumed >) = 0
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5174] ppoll([{fd=15, events=POLLIN}], 1, {tv sec=0, tv nsec=0}, NULL, 0 < unfinished ...>
[pid 5173] sendto(9, "\1\0\0\5ping\0", 9, 0, NULL, 0 <unfinished ...>
[pid 5153] <... getpid resumed>) = 5153
[pid 5174] < ... ppoll resumed >) = 0 (Timeout)
[pid 5173] <... sendto resumed>) = 9
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080379952, u64=281472762123312}}], 256, -1, NULL, 8) = 1
```

```
[pid 5155] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080381392, u64=281472762124752}}, {events=EPOLLIN, data={u32=3664093488, u64=281472762124752}},
u64=187650785255728}}], 256, -1, NULL, 8) = 2
[pid 5174] ppoll([{fd=15, events=POLLIN}], 1, NULL, NULL, 0 <unfinished ...>
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 9, {events=EPOLLIN, data={u32=2080379952, u64=281472762123312}} <unfinished ...>
[pid 5153] <... ppoll resumed>)
                                   = 0 (Timeout)
[pid 5173] <... epoll_ctl resumed>) = 0
[pid 5155] recvfrom(11, <unfinished ...>
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] <... recvfrom resumed>"\1\0\0\5ping\0", 8192, 0, NULL, NULL) = 9
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] getpid( <unfinished ...>
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, NULL, NULL, 0 <unfinished ...>
[pid 5155] <... getpid resumed>) = 5153
[pid 5155] write(9, "\1\0\0\0\0\0\0\0\0", 8) = 8
[pid 5153] <... ppoll resumed>)
                                   = 1 ([{fd=9, revents=POLLIN}])
[pid 5155] getpid( <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] <... getpid resumed>)
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] ppoll([{fd=7, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5153] read(9, <unfinished ...>
                                 = 1 ([{fd=7, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5155] <... ppoll resumed>)
[pid 5153] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\0\8) = 8
[pid 5155] getpid( <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] <... getpid resumed>) = 5153
[pid 5153] <... getpid resumed>)
                                   =5153
[pid 5155] read(7, <unfinished ...>
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5155] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\0\8) = 8
[pid 5153] <... ppoll resumed>)
                                 = 0 (Timeout)
[pid 5155] getpid( <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] <... getpid resumed>)
                                   = 5153
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] ppoll([{fd=7, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5153] write(7, "\1\0\0\0\0\0\0\0", 8 < unfinished ...>
```

```
[pid 5155] <... ppoll resumed>)
                                = 0 (Timeout)
[pid 5153] <... write resumed>)
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] <... epoll_pwait resumed>[{events=EPOLLIN, data={u32=3664093488, u64=187650785255728}}], 256, -1, NULL, 8) = 1
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] getpid( <unfinished ...>
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5155] <... getpid resumed>) = 5153
[pid 5153] < ... ppoll resumed >) = 0 (Timeout)
[pid 5155] ppoll([{fd=7, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] <... ppoll resumed>)
                                = 1 ([{fd=7, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] getpid( <unfinished ...>
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, NULL, NULL, 0 <unfinished ...>
[pid 5155] <... getpid resumed>) = 5153
[pid 5155] read(7, "\1\0\0\0\0\0\0\0\0", 8) = 8
[pid 5155] epoll_ctl(8, EPOLL_CTL_MOD, 11, {events=EPOLLIN|EPOLLOUT, data={u32=2080381392, u64=281472762124752}}) = 0
[pid 5155] getpid()
                             =5153
[pid 5155] write(9, "\1\0\0\0\0\0\0\0\0\", 8) = 8
[pid 5153] <... ppoll resumed>) = 1 ([{fd=9, revents=POLLIN}])
[pid 5155] sendto(11, "\1\0\0\5pong\0", 9, 0, NULL, 0 < unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080379952, u64=281472762123312}}], 256, -1, NULL, 8) = 1
[pid 5155] < ... sendto resumed >) = 9
[pid 5173] recvfrom(9, <unfinished ...>
[pid 5153] <... getpid resumed>) = 5153
[pid 5173] <... recvfrom resumed>"\1\0\0\5pong\0", 8192, 0, NULL, NULL) = 9
[pid 5155] getpid( <unfinished ...>
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5153] read(9, <unfinished ...>
[pid 5155] <... getpid resumed>) = 5153
[pid 5153] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\8) = 8
[pid 5155] ppoll([{fd=7, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] < ... ppoll resumed>) = 0 (Timeout)
```

```
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] epoll pwait(8, <unfinished ...>
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5155] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080381392, u64=281472762124752}}], 256, -1, NULL, 8) = 1
[pid 5153] < ... ppoll resumed >) = 0 (Timeout)
[pid 5155] epoll_ctl(8, EPOLL_CTL_MOD, 11, {events=EPOLLIN, data={u32=2080381392, u64=281472762124752}} <unfinished ...>
[pid 5153] getpid( <unfinished ...>
[pid 5155] < ... epoll_ctl resumed >) = 0
[pid 5153] <... getpid resumed>) = 5153
[pid 5155] epoll_pwait(8, <unfinished ...>
[pid 5153] ppoll([{fd=9, events=POLLIN}], 1, NULL, NULL, 0 <unfinished ...>
[pid 5151] < ... clock_nanosleep resumed>0xffffe4f67958) = 0
[pid 5151] eventfd2(0, EFD_CLOEXEC) = 10
[pid 5151] fcntl(10, F_GETFL)
                                   = 0x2 (flags O_RDWR)
[pid 5151] fcntl(10, F_SETFL, O_RDWR|O_NONBLOCK) = 0
[pid 5151] fcntl(10, F_GETFL)
                                  = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5151] fcntl(10, F_SETFL, O_RDWR|O_NONBLOCK) = 0
[pid 5151] getpid()
                             =5151
[pid 5151] getpid()
                             =5151
[pid 5151] ppoll([{fd=10, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0) = 0 (Timeout)
[pid 5151] getpid()
                             =5151
[pid 5151] write(6, "1\0\0\0\0\0\0\0, 8) = 8
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=3664090192, u64=187650785252432}}], 256, -1, NULL, 8) = 1
[pid 5151] getpid( <unfinished ...>
[pid 5173] getpid( <unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] <... getpid resumed>) = 5151
[pid 5151] write(10, "\1\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5173] ppoll([{fd=6, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5151] <... write resumed>)
[pid 5173] <... ppoll resumed>) = 1 ([{fd=6, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5151] write(1, "Ok: 5174\n", 9 < unfinished ...>
[pid 5173] getpid( <unfinished ...>
[pid 5151] <... write resumed>) = 9
[pid 5173] <... getpid resumed>) = 5151
[pid 5151] getpid( <unfinished ...>
[pid 5173] read(6, <unfinished ...>
```

```
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\0\8) = 8
[pid 5151] ppoll([{fd=8, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5173] socket(AF_INET, SOCK_STREAM|SOCK_CLOEXEC, IPPROTO_TCP <unfinished ...>
[pid 5151] <... ppoll resumed>)
                                  = 1 ([{fd=8, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5173] <... socket resumed>)
                                  = 11
[pid 5151] getpid( <unfinished ...>
[pid 5173] fcntl(11, F_GETFL < unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] < ... fcntl resumed > 0x2 (flags O_RDWR)
[pid 5151] read(8, <unfinished ...>
[pid 5173] fcntl(11, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5151] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\0\8) = 8
[pid 5173] <... fcntl resumed>)
[pid 5151] getpid( <unfinished ...>
[pid 5173] connect(11, {sa_family=AF_INET, sin_port=htons(5552), sin_addr=inet_addr("127.0.0.1")}, 16 < unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] <... connect resumed>) = -1 EINPROGRESS (Operation now in progress)
[pid 5151] ppoll([{fd=8, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5176] <... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080380736, u64=281472762124096}}], 256, -1, NULL, 8) = 1
[pid 5151] <... ppoll resumed>) = 0 (Timeout)
[pid 5173] epoll_ctl(7, EPOLL_CTL_ADD, 11, {events=0, data={u32=2080380032, u64=281472762123392}} <unfinished ...>
[pid 5151] write(1, "Ok: 1 //\321\203\320\267\320\267\320\267\320\267\320\267\320\267\320\273 1\320\264\320\276\321\201\321\202\321\202\321\203\320\277"..., 37 < unfinished ...>
[pid 5176] accept4(16, <unfinished ...>
[pid 5151] <... write resumed>) = 37
[pid 5173] < ... epoll_ctl resumed >) = 0
[pid 5151] pselect6(1, [0], NULL, NULL, {tv sec=0, tv nsec=0}, NULL <unfinished ...>
[pid 5176] < ... accept4 resumed> (sa_family=AF_INET, sin_port=htons(58444), sin_addr=inet_addr("127.0.0.1")}, [128 => 16], SOCK_CLOEXEC) = 17
[pid 5151] <... pselect6 resumed>) = 1 (in [0], left {tv_sec=0, tv_nsec=0})
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 11, {events=EPOLLOUT, data={u32=2080380032, u64=281472762123392}} <unfinished ...>
[pid 5151] write(1, "Received command: ping 2\n", 25 <unfinished ...>
[pid 5176] setsockopt(17, SOL_TCP, TCP_NODELAY, [1], 4 < unfinished ...>
[pid 5151] <... write resumed>)
[pid 5173] <... epoll_ctl resumed>) = 0
[pid 5151] getpid( <unfinished ...>
[pid 5176] <... setsockopt resumed>) = 0
[pid 5151] <... getpid resumed>) = 5151
```

```
[pid 5173] getpid( <unfinished ...>
[pid 5151] ppoll([{fd=10, events=POLLIN}], 1, {tv sec=0, tv nsec=0}, NULL, 0 < unfinished ...>
[pid 5176] getsockname(17, <unfinished ...>
[pid 5151] <... ppoll resumed>)
                                = 1 ([{fd=10, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5173] <... getpid resumed>)
                                  =5151
[pid 5151] getpid( <unfinished ...>
[pid 5176] < ... getsockname resumed> {sa_family=AF_INET, sin_port=htons(5552), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5173] ppoll([{fd=6, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5176] getpeername(17, <unfinished ...>
[pid 5151] read(10, <unfinished ...>
[pid 5173] < ... ppoll resumed >) = 0 (Timeout)
[pid 5151] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\0\8) = 8
[pid 5176] < ... getpeername resumed>{sa_family=AF_INET, sin_port=htons(58444), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5151] getpid( <unfinished ...>
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5176] getpeername(17, <unfinished ...>
[pid 5151] ppoll([{fd=10, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080380032, u64=281472762123392}}], 256, -1, NULL, 8) = 1
[pid 5151] <... ppoll resumed>) = 0 (Timeout)
[pid 5176] < ... getpeername resumed > {sa_family=AF_INET, sin_port=htons(58444), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5151] getpid( <unfinished ...>
[pid 5173] epoll ctl(7, EPOLL CTL DEL, 11, 0xffff7c001488 <unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5176] fcntl(17, F_GETFL <unfinished ...>
[pid 5151] ppoll([{fd=10, events=POLLIN}], 1, {tv sec=0, tv nsec=0}, NULL, 0 < unfinished ...>
[pid 5173] <... epoll_ctl resumed>) = 0
[pid 5151] < ... ppoll resumed >) = 0 (Timeout)
[pid 5176] < ... fcntl resumed > 0x2 (flags O_RDWR)
[pid 5151] pselect6(1, [0], NULL, NULL, {tv_sec=0, tv_nsec=0}, NULL <unfinished ...>
[pid 5173] getsockopt(11, SOL_SOCKET, SO_ERROR, <unfinished ...>
[pid 5151] \le ... pselect6 resumed > = 1 (in [0], left {tv sec=0, tv nsec=0})
[pid 5176] fcntl(17, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5151] write(1, "Received command: exec 2 2 10 20"..., 33 <unfinished ...>
[pid 5173] <... getsockopt resumed>[0], [4]) = 0
[pid 5151] <... write resumed>)
                                = 33
```

```
[pid 5176] <... fcntl resumed>)
                                = 0
[pid 5151] write(1, "Error:2: Node is unavailable\n", 29 < unfinished ...>
[pid 5173] setsockopt(11, SOL_TCP, TCP_NODELAY, [1], 4 <unfinished ...>
[pid 5151] <... write resumed>)
[pid 5176] getpid( <unfinished ...>
[pid 5151] getpid( <unfinished ...>
[pid 5173] <... setsockopt resumed>) = 0
[pid 5151] <... getpid resumed>) = 5151
[pid 5176] <... getpid resumed>)
                                   =5174
[pid 5151] ppoll([{fd=10, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5173] getsockname(11, <unfinished ...>
[pid 5151] <... ppoll resumed>)
                                 = 0 (Timeout)
[pid 5176] write(13, "\1\0\0\0\0\0\0\0\0", 8 <unfinished ...>
[pid 5151] pselect6(1, [0], NULL, NULL, {tv_sec=0, tv_nsec=0}, NULL <unfinished ...>
[pid 5173] < ... getsockname resumed>{sa_family=AF_INET, sin_port=htons(58444), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5151] <... pselect6 resumed>) = 1 (in [0], left {tv_sec=0, tv_nsec=0})
[pid 5176] <... write resumed>)
[pid 5151] read(0, <unfinished ...>
[pid 5173] getpeername(11, <unfinished ...>
[pid 5151] < ... read resumed > "", 4096) = 0
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5151] write(1, "Received command: ping 99\n", 26 <unfinished ...>
[pid 5173] <... getpeername resumed>{sa_family=AF_INET, sin_port=htons(5552), sin_addr=inet_addr("127.0.0.1")}, [128 => 16]) = 0
[pid 5151] <... write resumed>)
                                  = 26
[pid 5176] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=3664149216, u64=187650785311456}}], 256, -1, NULL, 8) = 1
[pid 5151] write(1, "Error: Not found\n", 17 < unfinished ...>
[pid 5173] fcntl(11, F GETFL < unfinished ...>
[pid 5151] < ... write resumed>)
[pid 5176] getpid( <unfinished ...>
[pid 5173] <... fcntl resumed>)
                                 = 0x802 (flags O_RDWR|O_NONBLOCK)
[pid 5151] getpid( <unfinished ...>
[pid 5176] <... getpid resumed>)
                                   =5174
[pid 5151] <... getpid resumed>)
                                   =5151
[pid 5173] fcntl(11, F_SETFL, O_RDWR|O_NONBLOCK <unfinished ...>
[pid 5151] ppoll([{fd=10, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5176] ppoll([{fd=13, events=POLLIN}], 1, {tv sec=0, tv nsec=0}, NULL, 0 < unfinished ...>
[pid 5151] <... ppoll resumed>)
                                  = 0 (Timeout)
```

```
[pid 5173] <... fcntl resumed>)
[pid 5151] pselect6(1, [0], NULL, NULL, {tv sec=0, tv nsec=0}, NULL <unfinished ...>
[pid 5176] <... ppoll resumed>)
                                = 1 ([{fd=13, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5151] <... pselect6 resumed>) = 1 (in [0], left {tv_sec=0, tv_nsec=0})
[pid 5173] getpid( <unfinished ...>
[pid 5151] write(1, "Exiting on EOF.\n", 16 <unfinished ...>
[pid 5176] getpid( <unfinished ...>
[pid 5151] <... write resumed>)
[pid 5173] <... getpid resumed>)
                                   =5151
[pid 5151] getpid( <unfinished ...>
[pid 5176] <... getpid resumed>)
                                   =5174
[pid 5151] <... getpid resumed>)
                                  =5151
[pid 5173] write(6, "\1\0\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5151] getpid( <unfinished ...>
[pid 5176] read(13, <unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] <... write resumed>)
[pid 5151] write(8, "\1\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5176] <... read resumed>"\1\0\0\0\0\0\0\0\0", 8) = 8
[pid 5151] <... write resumed>)
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5151] getpid( <unfinished ...>
[pid 5176] epoll_ctl(14, EPOLL_CTL_ADD, 17, {events=0, data={u32=2080384416, u64=281472762127776}} <unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=3664090192, u64=187650785252432}}], 256, -1, NULL, 8) = 1
[pid 5151] write(10, "\1\0\0\0\0\0\0\0", 8 <unfinished ...>
[pid 5176] <... epoll ctl resumed>) = 0
[pid 5151] <... write resumed>)
[pid 5173] getpid( <unfinished ...>
[pid 5151] getpid( <unfinished ...>
[pid 5176] epoll_ctl(14, EPOLL_CTL_MOD, 17, {events=EPOLLIN, data={u32=2080384416, u64=281472762127776}} <unfinished ...>
[pid 5151] <... getpid resumed>) = 5151
[pid 5173] <... getpid resumed>) = 5151
[pid 5151] ppoll([{fd=3, events=POLLIN}], 1, NULL, NULL, 0 <unfinished ...>
[pid 5176] < ... epoll_ctl resumed >) = 0
[pid 5173] ppoll([{fd=6, events=POLLIN}], 1, {tv sec=0, tv nsec=0}, NULL, 0 <unfinished ...>
[pid 5176] epoll_ctl(14, EPOLL_CTL_MOD, 17, {events=EPOLLIN|EPOLLOUT, data={u32=2080384416, u64=281472762127776}} < unfinished ...>
```

```
[pid 5173] <... ppoll resumed>) = 1 ([{fd=6, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5176] <... epoll ctl resumed>) = 0
[pid 5173] getpid( <unfinished ...>
[pid 5176] recvfrom(17, <unfinished ...>
[pid 5173] <... getpid resumed>) = 5151
[pid 5176] <... recvfrom resumed>0xffff7c001ed8, 12, 0, NULL, NULL) = -1 EAGAIN (Resource temporarily unavailable)
[pid 5173] read(6, <unfinished ...>
[pid 5176] getpid( <unfinished ...>
[pid 5173] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\0\8) = 8
[pid 5176] <... getpid resumed>) = 5174
[pid 5173] epoll_ctl(7, EPOLL_CTL_ADD, 11, {events=0, data={u32=2080380032, u64=281472762123392}} <unfinished ...>
[pid 5176] ppoll([{fd=13, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5173] <... epoll_ctl resumed>) = 0
[pid 5176] < ... ppoll resumed >) = 0 (Timeout)
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 11, {events=EPOLLIN, data={u32=2080380032, u64=281472762123392}} < unfinished ...>
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5173] < ... epoll_ctl resumed >) = 0
[pid 5176] < ... epoll pwait resumed>[{events=EPOLLOUT, data={u32=2080384416, u64=281472762127776}}], 256, 29999, NULL, 8) = 1
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 11, {events=EPOLLIN|EPOLLOUT, data={u32=2080380032, u64=281472762123392}} < unfinished ...>
[pid 5176] sendto(17, "\377\0\0\0\0\0\0\0\0\1\177", 10, 0, NULL, 0 < unfinished ...>
[pid 5173] < ... epoll_ctl resumed >) = 0
[pid 5176] <... sendto resumed>) = 10
[pid 5173] recvfrom(11, <unfinished ...>
[pid 5176] epoll_ctl(14, EPOLL_CTL_MOD, 17, {events=EPOLLIN, data={u32=2080384416, u64=281472762127776}} <unfinished ...>
[pid 5173] <... recvfrom resumed>"\377\0\0\0\0\0\0\0\0\1\177", 12, 0, NULL, NULL) = 10
[pid 5176] < ... epoll_ctl resumed >) = 0
[pid 5173] recvfrom(11, <unfinished ...>
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5173] < ... recvfrom resumed>0xffff7c0096e2, 2, 0, NULL, NULL) = -1 EAGAIN (Resource temporarily unavailable)
[pid 5173] getpid()
                             =5151
[pid 5173] ppoll([{fd=6, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0) = 0 (Timeout)
[pid 5173] epoll_pwait(7, [{events=EPOLLOUT, data={u32=2080380032, u64=281472762123392}}], 256, 29998, NULL, 8) = 1
[pid 5173] sendto(11, "\377\0\0\0\0\0\0\0\\1\177\3", 11, 0, NULL, 0 < unfinished ...>
[pid 5176] < ... epoll pwait resumed>[{events=EPOLLIN, data={u32=2080384416, u64=281472762127776}}], 256, 29998, NULL, 8) = 1
[pid 5173] <... sendto resumed>) = 11
[pid 5176] recvfrom(17, <unfinished ...>
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 11, {events=EPOLLIN, data={u32=2080380032, u64=281472762123392}} <unfinished ...>
```

```
[pid 5176] < ... recvfrom resumed>"\377\0\0\0\0\0\0\0\0\1\177\3", 12, 0, NULL, NULL) = 11
[pid 5173] <... epoll ctl resumed>) = 0
[pid 5176] epoll_ctl(14, EPOLL_CTL_MOD, 17, {events=EPOLLIN|EPOLLOUT, data={u32=2080384416, u64=281472762127776}} < unfinished ...>
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5176] < ... epoll_ctl resumed >) = 0
[pid 5176] recvfrom(17, 0xffff7c001ee3, 53, 0, NULL, NULL) = -1 EAGAIN (Resource temporarily unavailable)
[pid 5176] epoll_pwait(14, [{events=EPOLLOUT, data={u32=2080384416, u64=281472762127776}}], 256, 29995, NULL, 8) = 1
[pid 5173] < ... epoll pwait resumed>[{events=EPOLLIN, data={u32=2080380032, u64=281472762123392}}], 256, 29997, NULL, 8) = 1
[pid 5176] epoll_ctl(14, EPOLL_CTL_MOD, 17, {events=EPOLLIN, data={u32=2080384416, u64=281472762127776}} < unfinished ...>
[pid 5173] recvfrom(11, <unfinished ...>
[pid 5176] < ... epoll_ctl resumed >) = 0
[pid 5173] <... recvfrom resumed>"\3\1", 2, 0, NULL, NULL) = 2
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 11, {events=EPOLLIN|EPOLLOUT, data={u32=2080380032, u64=281472762123392}}) = 0
[pid 5173] recvfrom(11, 0xffff7c00bc48, 8192, 0, NULL, NULL) = -1 EAGAIN (Resource temporarily unavailable)
[pid 5173] epoll pwait(7, [{events=EPOLLOUT, data={u32=2080380032, u64=281472762123392}}], 256, 29995, NULL, 8) = 1
[pid 5176] <... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080384416, u64=281472762127776}}], 256, 29995, NULL, 8) = 1
[pid 5173] <... sendto resumed>) = 53
[pid 5176] recvfrom(17, <unfinished ...>
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5173] < ... epoll pwait resumed > [{events=EPOLLOUT, data={u32=2080380032, u64=281472762123392}}], 256, 29995, NULL, 8) = 1
[pid 5176] epoll_ctl(14, EPOLL_CTL_MOD, 17, {events=EPOLLIN|EPOLLOUT, data={u32=2080384416, u64=281472762127776}} < unfinished ...>
[pid 5173] sendto(11, "\4&\5READY\vSocket-Type\0\0\0\0\3REQ\10Iden"..., 40, 0, NULL, 0 <unfinished ...>
[pid 5176] <... epoll_ctl resumed>) = 0
[pid 5173] <... sendto resumed>) = 40
[pid 5176] recvfrom(17, <unfinished ...>
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5176] <... recvfrom resumed>"\4&\5READY\vSocket-Type\0\0\0\3REQ\10Iden"..., 8192, 0, NULL, NULL) = 40
[pid 5173] < ... epoll pwait resumed>[{events=EPOLLOUT, data={u32=2080380032, u64=281472762123392}}], 256, 29994, NULL, 8) = 1
[pid 5176] epoll pwait(14, <unfinished ...>
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 11, {events=EPOLLIN, data={u32=2080380032, u64=281472762123392}} <unfinished ...>
[pid 5176] < ... epoll pwait resumed>[{events=EPOLLOUT, data={u32=2080384416, u64=281472762127776}}], 256, 29993, NULL, 8) = 1
[pid 5173] <... epoll_ctl resumed>) = 0
```

```
[pid 5176] getpid( <unfinished ...>
[pid 5173] epoll pwait(7, <unfinished ...>
[pid 5176] <... getpid resumed>) = 5174
[pid 5176] write(15, "1\0\0\0\0\0\0\0, 8) = 8
[pid 5174] <... ppoll resumed>) = 1 ([{fd=15, revents=POLLIN}])
[pid 5176] sendto(17, "\4\31\5READY\vSocket-Type\0\0\0\0\3REP", 27, 0, NULL, 0 < unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5176] <... sendto resumed>) = 27
[pid 5173] <... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080380032, u64=281472762123392}}], 256, 29993, NULL, 8) = 1
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5174] <... getpid resumed>) = 5174
[pid 5176] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080384416, u64=281472762127776}}], 256, -1, NULL, 8) = 1
[pid 5173] recvfrom(11, <unfinished ...>
[pid 5176] epoll_ctl(14, EPOLL_CTL_MOD, 17, {events=EPOLLIN, data={u32=2080384416, u64=281472762127776}} < unfinished ...>
[pid 5174] read(15, <unfinished ...>
[pid 5176] <... epoll_ctl resumed>) = 0
[pid 5173] <... recvfrom resumed>"\4\31\5READY\vSocket-Type\0\0\0\3REP", 8192, 0, NULL, NULL) = 27
[pid 5176] epoll pwait(14, <unfinished ...>
[pid 5174] <... read resumed>"\1\0\0\0\0\0\0\0\0\", 8) = 8
[pid 5173] epoll_ctl(7, EPOLL_CTL_MOD, 11, {events=EPOLLIN|EPOLLOUT, data={u32=2080380032, u64=281472762123392}} <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5173] <... epoll_ctl resumed>) = 0
[pid 5174] <... getpid resumed>) = 5174
[pid 5173] sendto(11, "\1\0\0\5ping\0", 9, 0, NULL, 0 < unfinished ...>
[pid 5174] write(13, "\1\0\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5176] <... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080384416, u64=281472762127776}}], 256, -1, NULL, 8) = 1
[pid 5173] <... sendto resumed>) = 9
[pid 5176] recvfrom(17, <unfinished ...>
[pid 5174] <... write resumed>) = 8
[pid 5176] <... recvfrom resumed>"\1\0\0\5ping\0", 8192, 0, NULL, NULL) = 9
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5176] <... epoll_pwait resumed>[{events=EPOLLIN, data={u32=3664149216, u64=187650785311456}}], 256, -1, NULL, 8) = 1
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080380032, u64=281472762123392}}], 256, -1, NULL, 8) = 1
[pid 5176] getpid( <unfinished ...>
[pid 5174] <... getpid resumed>) = 5174
```

```
[pid 5176] <... getpid resumed>) = 5174
[pid 5173] epoll ctl(7, EPOLL CTL MOD, 11, {events=EPOLLIN, data={u32=2080380032, u64=281472762123392}} < unfinished ...>
[pid 5176] ppoll([{fd=13, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5174] ppoll([{fd=15, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5176] <... ppoll resumed>)
                                = 1 ([{fd=13, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5173] < ... epoll_ctl resumed >) = 0
[pid 5176] getpid( <unfinished ...>
[pid 5174] < ... ppoll resumed >) = 0 (Timeout)
[pid 5176] <... getpid resumed>) = 5174
[pid 5173] epoll_pwait(7, <unfinished ...>
[pid 5176] read(13, <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5176] <... read resumed>"\1\0\0\0\0\0\0\0\0\0\0\0\0\8 = 8
[pid 5174] <... getpid resumed>) = 5174
[pid 5176] getpid( <unfinished ...>
[pid 5174] ppoll([{fd=15, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5176] <... getpid resumed>) = 5174
[pid 5174] <... ppoll resumed>)
                                  = 0 (Timeout)
[pid 5176] ppoll([{fd=13, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5176] <... ppoll resumed>) = 0 (Timeout)
[pid 5174] <... getpid resumed>) = 5174
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5174] write(13, "\1\0\0\0\0\0\0\0\0", 8 < unfinished ...>
[pid 5176] <... epoll_pwait resumed>[{events=EPOLLIN, data={u32=3664149216, u64=187650785311456}}], 256, -1, NULL, 8) = 1
[pid 5174] <... write resumed>) = 8
[pid 5176] getpid( <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5176] <... getpid resumed>) = 5174
[pid 5174] <... getpid resumed>) = 5174
[pid 5176] ppoll([{fd=13, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5174] ppoll([{fd=15, events=POLLIN}], 1, NULL, NULL, 0 <unfinished ...>
[pid 5176] <... ppoll resumed>) = 1 ([{fd=13, revents=POLLIN}], left {tv_sec=0, tv_nsec=0})
[pid 5176] getpid()
                             =5174
[pid 5176] read(13, "1\0\0\0\0\0\0\0, 8) = 8
[pid 5176] epoll ctl(14, EPOLL CTL MOD, 17, {events=EPOLLIN|EPOLLOUT, data={u32=2080384416, u64=281472762127776}}) = 0
[pid 5176] getpid()
                             =5174
```

```
[pid 5176] write(15, "1\0\0\0\0\0\0\0\, 8) = 8
[pid 5174] <... ppoll resumed>) = 1 ([{fd=15, revents=POLLIN}])
[pid 5176] sendto(17, "\1\0\0\5pong\0", 9, 0, NULL, 0 <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5176] <... sendto resumed>)
[pid 5173] < ... epoll_pwait resumed>[{events=EPOLLIN, data={u32=2080380032, u64=281472762123392}}], 256, -1, NULL, 8) = 1
[pid 5176] getpid( <unfinished ...>
[pid 5174] <... getpid resumed>) = 5174
[pid 5176] <... getpid resumed>) = 5174
[pid 5173] recvfrom(11, <unfinished ...>
[pid 5176] ppoll([{fd=13, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0 <unfinished ...>
[pid 5174] read(15, <unfinished ...>
[pid 5176] < ... ppoll resumed >) = 0 (Timeout)
[pid 5173] <... recvfrom resumed>"\1\0\0\5pong\0", 8192, 0, NULL, NULL) = 9
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5174] <... read resumed>"\1\0\0\0\0\0\0\0\0\", 8) = 8
[pid 5176] < ... epoll_pwait resumed>[{events=EPOLLOUT, data={u32=2080384416, u64=281472762127776}}], 256, -1, NULL, 8) = 1
[pid 5173] epoll pwait(7, <unfinished ...>
[pid 5176] epoll_ctl(14, EPOLL_CTL_MOD, 17, {events=EPOLLIN, data={u32=2080384416, u64=281472762127776}} <unfinished ...>
[pid 5174] getpid( <unfinished ...>
[pid 5176] < ... epoll_ctl resumed >) = 0
[pid 5174] <... getpid resumed>) = 5174
[pid 5176] epoll_pwait(14, <unfinished ...>
[pid 5174] ppoll([{fd=15, events=POLLIN}], 1, {tv_sec=0, tv_nsec=0}, NULL, 0) = 0 (Timeout)
                             =5174
[pid 5174] getpid()
[pid 5174] ppoll([{fd=15, events=POLLIN}], 1, NULL, NULL, 0) = ? ERESTARTNOHAND (To be restarted if no handler)
strace: Process 5151 detached
strace: Process 5153 detached
strace: Process 5154 detached
strace: Process 5155 detached
strace: Process 5172 detached
strace: Process 5173 detached
strace: Process 5174 detached
strace: Process 5175 detached
strace: Process 5176 detached
```

Выводы

Интересно было поработать и разобраться в zmq