Subject: [patch 0/3][netns] fix and wipeout timewait sockets
Posted by Daniel Lezcano on Mon, 24 Sep 2007 13:29:35 GMT
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Denis Lunev spotted that using a reference to the network namespace
with the timewait sockets will be a waste of time because they
are pointless while we will remove the network stack at network
namespace exit.

The following patches do the following:
 - fix missing network namespace reference in timewait
 socket
 - do some changes in timewait socket code to prepare
 the next patch, especially split code taking a lock
 - do the effective timewait socket cleanup at network
 namespace exit.

The following code is a test program which creates 100 timewait
sockets.

```
#include <stdio.h>
#include <string.h>
#include <sys/types.h>
#include <sys/socket.h>
#include <sys/poll.h>
#include <netinet/in.h>
#include <netinet/tcp.h>
#include <arpa/inet.h>

#include <unistd.h>

#define MAXCONN 100

int client(int *fds)
{
	int i;
	struct sockaddr_in addr;

	close(fds[1]);

	memset(&addr, 0, sizeof(addr));

	addr.sin_family = AF_INET;
	addr.sin_port =  htons(10000);
	addr.sin_addr.s_addr = inet_addr("127.0.0.1");

	if (read(fds[0], &i, sizeof(i)) == -1) {
		perror("read");
```

```
		return 1;
	}

	for (i = 0; i < MAXCONN; i++) {
		int fd = socket(PF_INET, SOCK_STREAM, 0);
		if (fd == -1) {
			perror("socket");
			return 1;
		}

		if (connect(fd, (const struct sockaddr *)&addr, sizeof(addr))) {
			perror("connect");
			return 1;
		}
	}

	return 0;
}

int server(int *fds)
{
	int i, fd, fdpoll[MAXCONN];
	struct sockaddr_in addr;
	socklen_t socklen = sizeof(addr);

	close(fds[0]);

	fd = socket(PF_INET, SOCK_STREAM, 0);
	if (fd == -1) {
		perror("socket");
		return 1;
	}

	memset(&addr, 0, sizeof(addr));

	addr.sin_family = AF_INET;
	addr.sin_port = htons(10000);
	addr.sin_addr.s_addr = inet_addr("127.0.0.1");

	if (bind(fd, (const struct sockaddr *)&addr, sizeof(addr))) {
		perror("bind");
		return 1;
	}

	if (listen(fd, MAXCONN)) {
		perror("listen");
		return 1;
	}
```

```
	if (write(fds[1], &i, sizeof(i)) == -1) {
		perror("write");
		return 1;
	}

	for (i = 0; i < MAXCONN; i++) {
		int f = accept(fd, (struct sockaddr *)&addr, &socklen);
		if (f == -1) {
			perror("accept");
			return 1;
		}
		fdpoll[i] = f;
	}

	return 0;
}

int main(int argc, char *argv[])
{
	int fds[2];
	int pid;

	if (pipe(fds)) {
		perror("pipe");
		return 1;
	}

	pid = fork();
	if (pid == -1) {
		perror("fork");
		return 1;
	}

	if (!pid)
		return client(fds);
	else
		return server(fds);
}

--
```

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Containers@lists.linux-foundation.org
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