
Subject: [patch 0/2][NETNS49][IPV4][IGMP] activate multicast per namespace
Posted by [Daniel Lezcano](#) on Fri, 12 Oct 2007 17:10:13 GMT
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The following patches activate the multicast sockets for the namespaces. The results is a traffic going through different namespaces. So if there are several applications listening to the same multicast group/port, running in different namespaces, they will receive multicast packets.

The following program helps to test that.

Note that the TTL field is set to 2 to avoid to packets to be dropped while going through the network namespace.

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

```
int run(int server, int daddr, int dport, int saddr, int nbmsg, int delay, int timeout)
{
    int fd,i;
    struct ip_mreq mreq;
    struct sockaddr_in addr;

    socklen_t len = sizeof(addr);
    int val;

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

    mreq.imr_multiaddr.s_addr = daddr;
    mreq.imr_interface.s_addr = saddr;

    addr.sin_family = AF_INET;
    addr.sin_port = dport;
    addr.sin_addr.s_addr = INADDR_ANY;

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

    if (server)
```

```

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

    if (setsockopt(fd, IPPROTO_IP, IP_ADD_MEMBERSHIP, &mreq, sizeof(mreq))) {
        perror("setsockopt ADD_MEMBER_SHIP");
        return 1;
    }

    val = 2;
    if (setsockopt(fd, IPPROTO_IP, IP_MULTICAST_TTL, &val, sizeof(val))) {
        perror("setsockopt MULTICAST_TTL");
        return 1;
    }

    /* val = 0; */
    val = 1;
    if (setsockopt(fd, IPPROTO_IP, IP_MULTICAST_LOOP, &val, sizeof(val))) {
        perror("setsockopt MULTICAST_LOOP");
        return 1;
    }

    addr.sin_addr.s_addr = daddr;

    if (server) {
        for (i = 0; i < nbmsg; i++) {
            alarm(timeout);
            if (recv(fd, &i, sizeof(i), 0) == -1) {
                perror("recv");
                return 1;
            }
            fprintf(stderr, ".");
        }
    } else {
        for (i = 0; i < nbmsg; i++) {
            if (sendto(fd, &i, sizeof(i), MSG_CONFIRM,
                (const struct sockaddr*)&addr, len) == -1) {
                perror("sendto");
                return 1;
            }
            usleep(delay);
        }
    }
}

fprintf(stderr, " - done.\n");
return 0;
}

```

```
int main(int argc, char* argv[])
{
    in_addr_t dest = inet_addr("234.5.6.7");
    int port = htons(10000);

    return run(argc > 1, dest, port, 0, 1000, 50000, 60);
}

--
```

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