NAME

    rdma_create_id - Allocate a communication identifier.

SYNOPSIS

    #include <rdma/rdma_cma.h>

    int rdma_create_id (struct rdma_event_channel *channel***, struct rdma_cm_id** ***id***, void** *context***, enum rdma_port_space** *ps***);**

ARGUMENTS

    channel   The communication channel that events associated with the allocated rdma_cm_id will
                 be reported on. This may be NULL.

    id   A reference where the allocated communication identifier will be returned.

    context   User specified context associated with the rdma_cm_id.

    ps   RDMA port space.

DESCRIPTION

    Creates an identifier that is used to track communication information.

RETURN VALUE

    Returns 0 on success, or -1 on error. If an error occurs, errno will be set to indicate the failure reason.

NOTES

    Rdma_cm_id's are conceptually equivalent to a socket for RDMA communication. The difference is
    that RDMA communication requires explicitly binding to a specified RDMA device before
    communication can occur, and most operations are asynchronous in nature. Asynchronous
    communication events on an rdma_cm_id are reported through the associated event channel. If the
    channel parameter is NULL, the rdma_cm_id will be placed into synchronous operation. While
    operating synchronously, calls that result in an event will block until the operation completes. The
    event will be returned to the user through the rdma_cm_id structure, and be available for access until
    another rdma_cm call is made.

    Users must release the rdma_cm_id by calling rdma_destroy_id.

PORT SPACE

    Details of the services provided by the different port spaces are outlined below.

RDMA_PS_TCP

    Provides reliable, connection-oriented QP communication. Unlike TCP, the RDMA port space provides message, not stream, based communication.

RDMA_PS_UDP

    Provides unreliable, connectionless QP communication. Supports both datagram and multicast communication.

RDMA_PS_IB

    Provides for any IB services (UD, UC, RC, XRC, etc.).

SEE ALSO

    rdma_cm(7), rdma_create_event_channel(3), rdma_destroy_id(3), rdma_get_devices(3), rdma_bind_addr(3), rdma_resolve_addr(3), rdma_connect(3), rdma_listen(3), rdma_set_option(3)