NAME

mlx5dv_devx_umem_reg – Register a user memory to be used by the devx interface

mlx5dv_devx_umem_dereg – Deregister a devx umem object

SYNOPSIS

```
#include <infiniband/mlx5dv.h>

struct mlx5dv_devx_umem {
    uint32_t umem_id;
};

struct mlx5dv_devx_umem *
mlx5dv_devx_umem_reg(struct ibv_context *context, void *addr, size_t size,
             uint32_t access)

int mlx5dv_devx_umem_dereg(struct mlx5dv_devx_umem *dv_devx_umem)
```

DESCRIPTION

Register or deregister a user memory to be used by the devx interface.

The register verb exposes a UMEM DEVX object for user memory registration for DMA. The API to register the user memory gets as input the user address, length and access flags, and provides to the user as output an object which holds the UMEM ID returned by the firmware to this registered memory.

The user will use that UMEM ID in device direct commands that use this memory instead of the physical addresses list, for example upon *mlx5dv_devx_obj_create* to create a QP.

ARGUMENTS

context

```
RDMA device context to create the action on.
```

addr The memory start address to register.

size

```
The size of *addr* buffer.
```

access The desired memory protection attributes; it is either 0 or the bitwise OR of one or more of *enum ibv_access_flags*.

RETURN VALUE

Upon success *mlx5dv_devx_umem_reg* will return a new *struct mlx5dv_devx_umem* object, on error NULL will be returned and errno will be set.

mlx5dv_devx_umem_dereg returns 0 on success, or the value of errno on failure (which indicates the failure reason).

SEE ALSO

mlx5dv_open_device(3), *ibv_reg_mr(3)*, *mlx5dv_devx_obj_create(3)*

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