NAME scsi_hba_pkt_alloc, scsi_hba_pkt_free – allocate and free a scsi_pkt structure

SYNOPSIS **#include <sys/scsi/scsi.h>**

struct scsi_pkt *scsi_hba_pkt_alloc(dev_info_t **dip*, **struct scsi_address** **ap*,
int *cmdlen*, **int** *statuslen*, **int** *tgtlen*, **int** *hbalen*, **int (****callback* **)(caddr_t** *arg***),**
caddr_t *arg***);**

void scsi_hba_pkt_free(struct scsi_address **ap*, **struct scsi_pkt** **pkt***);**

INTERFACE LEVEL Solaris architecture specific (Solaris DDI).

ARGUMENTS

dip Pointer to a **dev_info_t** structure, defining the HBA driver instance.

ap Pointer to a **scsi_address**(9S) structure, defining the target instance.

cmdlen Length in bytes to be allocated for the SCSI command descriptor block (CDB).

statuslen Length in bytes to be allocated for the SCSI status completion block (SCB).

tgtlen Length in bytes to be allocated for a private data area for the target driver's exclusive use.

hbalen Length in bytes to be allocated for a private data area for the HBA driver's exclusive use.

callback indicates what **scsi_hba_pkt_alloc( )** should do when resources are not available:

NULL_FUNC Do not wait for resources. Return a **NULL** pointer.

SLEEP_FUNC Wait indefinitely for resources.

arg Must be **NULL**.

pkt A pointer to a **scsi_pkt**(9S) structure.

DESCRIPTION

scsi_hba_pkt_alloc( )

scsi_hba_pkt_alloc( ) allocates space for a **scsi_pkt** structure. HBA drivers should use this interface when allocating a **scsi_pkt** from their **tran_init_pkt**(9E) entry point.

If *callback* is **NULL_FUNC**, **scsi_hba_pkt_alloc( )** may not sleep when allocating resources, and callers should be prepared to deal with allocation failures.

scsi_hba_pkt_alloc( ) copies the **scsi_address**(9S) structure pointed to by *ap* to the **pkt_address** field in the **scsi_pkt**(9S).

scsi_hba_pkt_alloc( ) also allocates memory for these **scsi_pkt**(9S) data areas, and sets these fields to point to the allocated memory:

pkt_ha_private	HBA private data area
pkt_private	target driver private data area
pkt_scbp	SCSI status completion block
pkt_cdbp	SCSI command descriptor block

scsi_hba_pkt_free( )

scsi_hba_pkt_free( ) frees the space allocated for the **scsi_pkt**(9S) structure.

RETURN VALUES

scsi_hba_pkt_alloc( ) returns a pointer to the **scsi_pkt** structure, or **NULL** if no space is available.

CONTEXT

scsi_hba_pkt_alloc( ) can be called from user or interrupt context. Drivers must not allow **scsi_hba_pkt_alloc( )** to sleep if called from an interrupt routine.

scsi_hba_pkt_free( ) can be called from user or interrupt context.

SEE ALSO

tran_init_pkt(9E), **scsi_pkt**(9S)

Writing Device Drivers