NAME

t_rcv – receive data or expedited data sent over a connection

SYNOPSIS

cc [*flag* ...] *file* ... –**lnsl** [*library* ...]

int t_rcv(int *fildes***, char** **buf***, unsigned** *nbytes***, int** **flags***);**

MT-LEVEL

MT-Safe

DESCRIPTION

This function receives either normal or expedited data. *fildes* identifies the local transport endpoint through which data will arrive, *buf* points to a receive buffer where user data will be placed, and *nbytes* specifies the size of the receive buffer. *flags* may be set on return from **t_rcv( )** and specifies optional flags as described below.

By default, **t_rcv( )** operates in synchronous mode and will wait for data to arrive if none is currently available. However, if **O_NDELAY** or **O_NONBLOCK** is set (using **t_open**(3N) or **fcntl**(2)), **t_rcv( )** will execute in asynchronous mode and will fail if no data is available. (See **TNODATA** below.)

On return from the call, if **T_MORE** is set in *flags*, this indicates that there is more data and the current transport service data unit (**TSDU**) or expedited transport service data unit (**ETSDU**) must be received in multiple **t_rcv( )** calls. Each **t_rcv( )** with the **T_MORE** flag set indicates that another **t_rcv( )** must follow to get more data for the current **TSDU**. The end of the **TSDU** is identified by the return of a **t_rcv( )** call with the **T_MORE** flag not set. If the transport provider does not support the concept of a **TSDU** as indicated in the *info* argument on return from **t_open**(3N) or **t_getinfo**(3N), the **T_MORE** flag is not meaningful and should be ignored.

On return, the data returned is expedited data if **T_EXPEDITED** is set in *flags*. If the number of bytes of expedited data exceeds *nbytes*, **t_rcv( )** will set **T_EXPEDITED** and **T_MORE** on return from the initial call. Subsequent calls to retrieve the remaining **ETSDU** will have **T_EXPEDITED** set on return. The end of the **ETSDU** is identified by the return of a **t_rcv( )** call with the **T_MORE** flag not set.

If expedited data arrives after part of a **ETSDU** has been retrieved, receipt of the remainder of the **TSDU** will be suspended until the **ETSDU** has been processed. Only after the full **ETSDU** has been retrieved (**T_MORE** not set) will the remainder of the **TSDU** be available to the user.

RETURN VALUES

On successful completion, **t_rcv( )** returns the number of bytes received. On failure **t_rcv( )** returns –1, **t_errno** is set to indicate the error, and possibly **errno** is set.

ERRORS

On failure, **t_errno** will be set to one of the following:

TBADF	The specified file descriptor does not refer to a transport endpoint.
TLOOK	An asynchronous event has occurred on this transport endpoint and requires immediate attention.
TNODATA	**O_NDELAY** or **O_NONBLOCK** was set, but no data is currently available from the transport provider.

TNOTSUPPORT	This function is not supported by the underlying transport provider.
TSYSERR	A system error has occurred during execution of this function, **errno** will be set to the specific error.

SEE ALSO

fcntl(2), **t_getinfo**(3N), **t_open**(3N), **t_snd**(3N)

Transport Interfaces Programming Guide

NOTES

This interface is safe in multithreaded applications.