

## 4.4.1 MCAPI\_PKTCHAN\_CONNECT\_I

### NAME

`mcapi_pktchan_connect_i` – Connects send and receive side endpoints.

### SYNOPSIS

```
#include <mcapi.h>

void mcapi_pktchan_connect_i(
    MCAPI_IN mcapi_endpoint_t  send_endpoint,
    MCAPI_IN mcapi_endpoint_t  receive_endpoint,
    MCAPI_OUT mcapi_request_t* request,
    MCAPI_OUT mcapi_status_t* mcapi_status
);
```

### DESCRIPTION

Connects a pair of endpoints into a unidirectional FIFO channel. The connect operation can be performed by the sender, the receiver, or by a third party. The connect can happen at the start of the program, or dynamically at run time.

Connect is a non-blocking function. Synchronization to ensure the channel has been created is provided by the open call discussed later.

Channel type endpoints can be connected. A message type endpoint with a get reference count of 0 can also be connected, in which case its type will change to channel for the duration of the connection. If the endpoint get reference count is 0 its reference count will be raised to 1 for the duration of the connection and if so reset to 0 upon close. Attempts to connect message type endpoints with get reference counts > 0 will result in an error.

Attempts to make multiple connections to a single endpoint will be detected as errors. The type of channel connected to an endpoint must match the type of open call invoked by that endpoint; the open function will return an error if the opened channel type does not match the connected channel type, or direction.

It is an error to attempt a connection between endpoints whose attributes are set in an incompatible way (whether attributes are compatible or not is implementation defined). It is also an error to attempt to change the attributes of endpoints that are connected. It is an error to connect an endpoint with itself. A previously connected endpoint can't be connected until the previous channel is disconnected (implies both sides closed).

### RETURN VALUE

On success `*mcapi_status` is set to `MCAPI_SUCCESS` if completed and `MCAPI_PENDING` if not yet completed. On error, `*mcapi_status` is set to the appropriate error defined below.

### ERRORS

<code>MCAPI_ERR_NODE_NOTINIT</code>	The node is not initialized.
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