# Message definition

##  StartTransport

The StartTransport message is sent to the upstream machine to initiate the PCB handover process. There is no response to this message.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **StartTransport** | **Type** | **Range** | **Optional** | **Description** |
| nodeBoardId | string | GUID | no | The ID of the board for which the transport shall be started. |
|  |  |  |  |  |
| nodeConveyorSpeed | float | positive numbers | yes | Optional parameter indicating the selected conveyor speed for the handover in millimeter per second |

The downstream machine is responsible for selecting the actual conveyor speed according to the preferred conveyor speed sent in the BoardAvailable message. In general the highest possible speed supported by both machines will be selected.

If a StartTransport message is received for a BoardId which is not the one received with the last BoardAvailable message, the transport shall be canceled. This case is not to be treated as a protocol error.

##  StopTransport

The StopTransport message is sent by the downstream machine after it has finished the transport.

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| --- | --- | --- | --- | --- |
| **StopTransport** | **Type** | **Range** | **Optional** | **Description** |
| nodeTransferState | int | 1 .. 3 | no | See list below for possible values |
| nodeBoardId | string | GUID | no | The ID of the board to which the message relates to |
|  |  |  |  |  |

Transfer states:

1. NotStarted: The PCB never left and hence is fully inside the upstream machine.
2. Incomplete: The transfer was cancelled in progress.
3. Complete: The transfer ended successfully.

If the BoardId does not match the one from StartTransport, this shall be treated as a protocol error: hence the connection would need to be re-established.

##  TransportFinished

The TransportFinished message is sent by the upstream machine after it finished the transport.

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| --- | --- | --- | --- | --- |
| **TransportFinished** | **Type** | **Range** | **Optional** | **Description** |
| nodeTransferState | int | 1 .. 3 | no | See list below for possible values |
| nodeBoardId | string | GUID | no | The ID of the board to which the message relates to |
|  |  |  |  |  |

Transfer states:

1. NotStarted: The PCB never left and hence is fully inside the upstream machine.
2. Incomplete: The transfer was cancelled in progress.
3. Complete: The transfer ended successfully.

If the BoardId does not match the one from StartTransport, this shall be treated as a protocol error; hence the connection would need to be re-established.