

Implementation advice: The request should allow simple arithmetic equality comparison ($a == b$), such as a 32-bit scalar or pointer.

3.16.11 `mcapi_status_t`

The `mcapi_status_t` type is an enumerated type used to record the result of a MCAP API call. If a status can be returned by an API call, the associated MCAP API call will allow a `mcapi_status_t` to be passed by reference. The API call will fill in the status code and the API user may examine the `mcapi_status_t` variable to determine the result of the call. The function return values are valid only when `mcapi_status` returns `MCAP_SUCCESS`. The `mcapi_status_t` has an `mca_status_t` equivalent.

3.16.12 `mcapi_timeout_t`

The `mcapi_timeout_t` type is a scalar type used to indicate the duration blocking API routine will block before reporting a timeout. The units of the `mcapi_timeout_t` data type are implementation defined since mechanisms for time keeping vary from system to system. Applications should therefore not rely on this feature for satisfaction of absolute real time constraints as its usage will not guarantee application portability across MCAP implementations. The `mcapi_timeout_t` data type is intended primarily to allow for error detection and recovery and the application developer must take appropriate action if used for any other purpose. The `mcapi_timeout_t` has an `mca_timeout_t` equivalent. A value of `MCAP_TIMEOUT_IMMEDIATE` (0) for the `timeout` parameter indicates that the function will return without blocking with failure or success and a value of `MCAP_INFINITE` (~0) for the `timeout` parameter indicates no timeout is requested, i.e. the function will block until it is unblocked because of failure or success.

3.16.13 MCAP endpoint attributes

MCAP endpoint attributes provide access to endpoint type, characteristics and state, see header files for detailed information. Implementations may designate endpoint attributes as read-only. Some endpoint attributes have to be compatible for a successful channel, as noted below.

3.16.13.1 `mcapi_endp_attr_max_payload_size_t`

This attribute defines the maximum payload size. This is a channel compatibility attribute, meaning that a channel connection requires that this attribute value is the same for both channel endpoints. Default value is implementation defined.

3.16.13.2 `mcapi_endp_attr_buffer_type_t`

This attribute defines the endpoint buffer type. FIFO means that the order of transmission is preserved for channels and FIFO per priority level for messages. STATE means that the order of transmission is non-deterministic with the current value transmitted when requested. This is a channel compatibility attribute, meaning that a channel connection requires that this attribute value is the same for both channel endpoints. Default value is implementation defined.

Buffer types: `MCAP_ENDP_ATTR_FIFO_BUFFER` Default
`MCAP_ENDP_ATTR_STATE_BUFFER` ABB Extension