3.16 MCAPI Data Types

MCAPI uses predefined data types for maximum portability. The predefined MCAPI data types are defined in the following subsections. To simplify the use of multiple MCA (Multicore Association) standard API's some MCAPI data types have MCA equivalents and some MCAPI functions will have MCA equivalent functions that can be used for multiple MCA API's. An MCAPI implementation is not required to provided MCA equivalent functions.

3.16.1 mcapi_domain_t

The `mcapi_domain_t` type is used for MCAPI domains. Domain numbering is implementation defined. For application portability we recommend using symbolic constants in your code. The mcapi_domain_t has an mca_domain_t equivalent.

3.16.2 mcapi_node_t

The `mcapi_node_t` type is used for MCAPI nodes. The node numbering is implementation defined. For application portability we recommend using symbolic constants in your code. The mcapi_node_t has an mca_node_t equivalent.

3.16.3 mcapi_port_t

The `mcapi_port_t` type is used for MCAPI ports. The port numbering is implementation defined. For application portability we recommend using symbolic constants in your code.

3.16.4 mcapi_endpoint_t

The `mcapi_endpoint_t` type is used for creating and managing endpoints for sending and receiving data (see Section 2). MCAPI routines for creating and managing endpoints are described in Section 4.2~~4.2~~, packet channel creation is covered in Section 4.4.1~~4.4.1~~, and scalar channel creation is covered in Section 0~~0~~. The `mcapi_endpoint_t` type is an opaque data type whose exact definition is implementation defined. The endpoint identifier is globally unique to an MCAPI topology.

NOTE: The MCAPI API user should not attempt to examine the contents of this data type as this can result in non-portable application code.

Implementation advice: The endpoint type must provide for topology global uniqueness, be returnable by a function, be passable as a parameter to a function and should allow simple arithmetic equality comparison (a == b), such as a 32- bit scalar or pointer.

3.16.5 mcapi_pktchan_recv_hndl_t

The `mcapi_pktchan_recv_hndl_t` type is used to receive packets from a connected packet channel (see Section 2~~2~~). MCAPI routines for creating and using the `mcapi_pktchan_recv_hndl_t` type are covered in Section 4.4~~4.4~~. The `mcapi_pktchan_recv_hndl_t` is an opaque data type whose exact definition is implementation defined.

NOTE: The MCAPI API user should not attempt to examine the contents of this data type as this can result in non-portable application code.

Implementation advice: The handle must be passable as a parameter to a function and should allow simple arithmetic equality comparison (a == b), such as a 32- bit scalar or pointer.

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