**MRAPI API Specification V0.9.3**

**4.8.14 MRAPI\_ATOMIC\_CAS\_PTR (ABB Extension)**

**NAME**

mrapi\_atomic\_cas\_ptr

**SYNOPSIS**

void mrapi\_atomic\_cas\_ptr(

MRAPI\_OUT void\* sync, MRAPI\_IN uintptr\_t\* dest, MRAPI\_IN uintptr\_t exchange, MRAPI\_IN uintptr\_t compare, MRAPI\_OUT uintptr\_t\* previous, MRAPI\_OUT mrapi\_status\_t\* status

);

**DESCRIPTION**

mrapi\_atomic\_cas\_ptr()performs atomic pointer compare and swap. Atomic integer

compare and swap is provided by mrapi\_atomic\_cas(). The operation is only valid for memory locations within shared memory, where the synchronization can be across real-time processes. The pointer value at destination address is compared with compare, and if they match then replaced with exchange. The compare and exchange arguments can be NULL,

otherwise they must be addresses within the shared memory. The previous value is returned if that argument is non-NULL. Returned status indicates if the operation succeeded.

**RETURN VALUE**

None.

**ERRORS**

|  |  |
| --- | --- |
| MRAPI\_ERR\_NODE\_NOTINIT | The calling node is not initialized |
| MRAPI\_ERR\_ATOM\_OP\_FAILED | The local atomic operation failed |
|  |  |

**NOTE**

**SEE ALSO**