

#### 4.8.15 MRAPI\_ATOMIC\_XCHG\_PTR (ABB Extension)

##### NAME

`mrapi_atomic_xchg_ptr`

##### SYNOPSIS

```
void mrapi_atomic_xchg_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_xchg_ptr()` performs atomic pointer exchange. Atomic integer exchange is provided by `mrapi_atomic_xchg()`. 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 replaced by `exchange`. The `exchange` argument can be `NULL`, otherwise it must be an address 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

<code>MRAPI_ERR_NODE_NOTINIT</code>	The calling node is not initialized
<code>MRAPI_ERR_ATOM_OP_FAILED</code>	The local atomic operation failed

##### NOTE

##### SEE ALSO