

### **4.3.2 Semaphores**

MRAPI semaphores provide shared locking functionality through the use of a counter. When an MRAPI semaphore is created, the maximum number of available locks is specified (in the `shared_lock_limit` parameter). If `mrapi_sem_lock()` is called and all locks are currently locked, then the function will block until a lock is available. It is safer to use `mrapi_sem_trylock()` unless you are certain that the lock will eventually succeed. Otherwise, your thread of execution can block forever waiting for the lock.