

```
1 void acquire(spinlock *lock) {
2     int attempts = 0;
3     while (true) {
4         ++attempts;
5         TLE_STATUS status = TX_Begin;
6         if (status == STARTED) {
7             if (!lock.held()) {
8                 return;
9             }
10            else {
11                TX_End;
12                attempts--;
13                while (lock.held()) { }
14            }
15        }
16        else if (status != TX_Conflict || attempts >= 4) {
17            lock.acquire();
18            return;
19        }
20    }
21 }
22 void release(spinlock *lock) {
23     if (!lock.held()) {
24         TX_End;
25     }
26     else {
27         lock.release();
28     }
29 }
```

FIGURE 20.7 A complete implementation of TLE, using a spin-lock as the fallback path.