# CWE Detail – CWE-574

## Description

The product violates the Enterprise JavaBeans (EJB) specification by using thread synchronization primitives.

## Extended Description

The Enterprise JavaBeans specification requires that every bean provider follow a set of programming guidelines designed to ensure that the bean will be portable and behave consistently in any EJB container. In this case, the product violates the following EJB guideline: "An enterprise bean must not use thread synchronization primitives to synchronize execution of multiple instances." The specification justifies this requirement in the following way: "This rule is required to ensure consistent runtime semantics because while some EJB containers may use a single JVM to execute all enterprise bean's instances, others may distribute the instances across multiple JVMs."

## Threat-Mapped Scoring

Score: 0.0

Priority: Unclassified

## Modes of Introduction

**•** Implementation: N/A

## Common Consequences

**•** Impact: Quality Degradation — Notes:

## Potential Mitigations

**•** Implementation: Do not use Synchronization Primitives when writing EJBs. (Effectiveness: N/A)

## Applicable Platforms

**•** Java (Class: None, Prevalence: Undetermined)

## Demonstrative Examples

**•** However, the customer entity EJB uses the synchronized keyword for the set methods to attempt to provide thread safe synchronization for the member variables. The use of synchronized methods violate the restriction of the EJB specification against the use synchronization primitives within EJBs. Using synchronization primitives may cause inconsistent behavior of the EJB when used within different EJB containers.