## OpenV\*Secure Admin Database API Unit Test Description\*

Jonathan I. Kamens

February 3, 2010

## 1 Introduction

The following is a description of a black-box unit test of the OpenV\*Secure Admin Database API (osa\_adb). Each API function is listed, followed by the tests that should be performed on it.

The tests described here are based on the "OV\*Secure Admin Server Implementation Design" revision 1.14.

## 2 osa\_adb\_get\_lock and osa\_adb\_release\_lock

Number: 1

Reason: A shared lock can be acquired.

Status: Implemented

Number: 2

**Reason:** An exclusive lock can be acquired and released.

Status: Implemented

Number: 3

**Reason:** A permanent lock can be acquired and released.

**Status:** Implemented

Number: 4

Reason: Attempting to release a lock when none is held fails with NOTLOCKED.

Status: Implemented

Number: 5

**Reason:** Two processes can both acquire a shared lock.

Status: Implemented

Number: 6

Reason: An attempt to acquire a shared lock while another process holds an exclusive lock fails with CANTLOCK\_

DB.

Status: Implemented

<sup>\*</sup>adb-unit-test.tex 17360 2005-08-25 23:41:34Z raeburn

Number: 7

Reason: An attempt to acquire an exclusive lock while another process holds a shared lock fails with CANTLOCK\_

DB.

Status: Implemented

Number: 8

Reason: An attempt to open the database while a process holds a permanent lock fails with NO\_LOCKFILE.

Status: Implemented

Number: 9

Reason: An attempt to acquire an exclusive lock while a process holds a permanent lock fails with NO\_LOCKFILE.

Status: Implemented

Number: 10

Reason: Acquiring a permanent lock deletes the lockfile.

Status: Implemented

Number: 11

**Reason:** Releasing a permanent lock re-creates the lockfile.

Status: Implemented

Number: 12

**Reason:** A process can perform a get operation while another process holds a shared lock.

Status: Implemented

Number: 13

Reason: A process that is running and has opened the adb principal database can retrieve a principal created after the

open occurred.

Status: Implemented, but not working