

**StorageTek Virtual Storage Manager System**  
VSM 6 Security Guide

**E27730-03**

February 2016

StorageTek Virtual Storage Manager System VSM 6 Security Guide,

E27730-03

Copyright © 2013, 2016, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

---

---

# Contents

<b>Preface</b> .....	v
Audience.....	v
Documentation Accessibility .....	v
<b>1 Overview</b>	
<b>Product Overview</b> .....	1-1
<b>Critical Security Principles</b> .....	1-2
Keep Software Up To Date .....	1-2
Restrict Network Access to Critical Services.....	1-2
Authentication .....	1-2
Follow the Principle of Least Privilege .....	1-2
Monitor System Activity .....	1-3
Keep Up To Date on Latest Security Information .....	1-3
<b>2 Secure Installation</b>	
<b>3 Security Features</b>	
<b>A Secure Deployment Checklist</b>	



---

---

# Preface

This document describes the security features of Oracle's StorageTek Virtual Storage Manager System 6 Virtual Tape Storage Subsystem (VSM 6 VTSS).

## Audience

This guide is intended for anyone involved with using security features and secure installation and configuration of VSM 6 VTSS.

## Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

### Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.



---

---

# Overview

This section gives an overview of the product and explains the general principles of application security.

## Product Overview

Oracle's StorageTek Virtual Storage Manager System 6 Virtual Tape Storage Subsystem (VSM 6 VTSS) is packaged as an engineered system built on existing Oracle server, and storage platforms. The servers, disk storage, and standard rack mount enclosure are delivered as a packaged system, or appliance.

The VTSS appliance includes pre-installed pre-configured software for VTSS functionality so that limited site-level configuration is required to integrate the product into the customer's managed tape environment. The appliance is designed to preclude the need for customer administration of the system.

---

---

**Note:** Only qualified Oracle personnel are permitted to maintain the system and administer any configuration changes.

---

---

The VTSS is just one component of a VSM solution.

Major subsystems include:

### **VTSS hardware and software**

The VSM 6 VTSS supports emulated tape connectivity over FICON interfaces to IBM MVS, VM and zLinux hosts and also FICON attachment to Real Tape Drives (RTDs) and TCP/IP attachment to other VTSSs and VLEs. FICON is an IBM-driven standard for channel protocol between CPU (zOS) and devices.

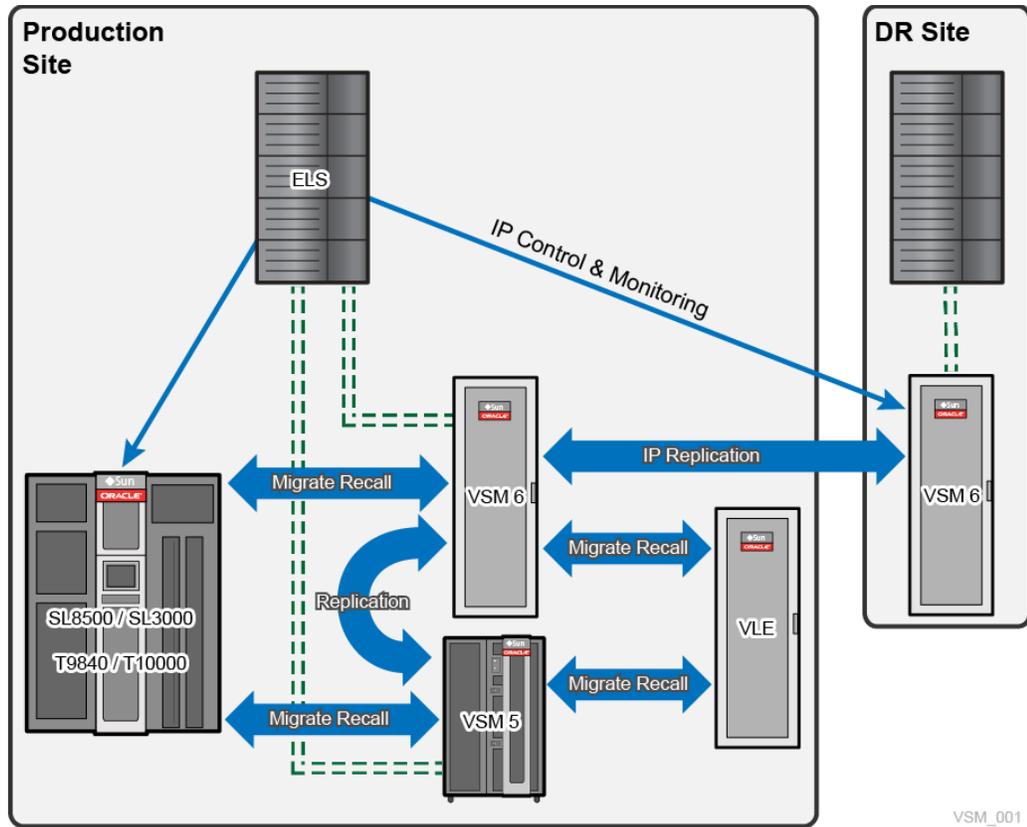
### **Enterprise Library Software (ELS) and Virtual Tape Control Software (VTCS)**

ELS is the consolidated suite of StorageTek mainframe software that enables and manages the VTSS. The ELS base software consists of Host Software Component (HSC), Storage Management Component (SMC), HTTP Server and Virtual Tape Control Software (VTCS).

VTCS is the ELS component that controls virtual tape creation, deletion, replication, migration and recall of virtual tape images on the VTSS subsystem, and also captures reporting information from the VTSS subsystem.

### **Virtual Library Extended (VLE) hardware and software**

The Virtual Library Extended (VLE) subsystem functions as a migrate and recall target for VTSS Virtual Tape Volumes (VTVs). The VLE is IP-attached to the VTSS.



## Critical Security Principles

The following principles are fundamental to using any product securely.

### Keep Software Up To Date

Patches and system updates will be installed by qualified Oracle personnel.

### Restrict Network Access to Critical Services

Appliances should be installed in secure physical locations with access limited to authorized customer employees or agents and Oracle service personnel. The system should be networked behind a firewall. Only Oracle service personnel are permitted to administer the system.

### Authentication

Ensure that only authorized personnel can access system. Passwords should be changed when deployed at the customer site.

### Follow the Principle of Least Privilege

Non-VTSS user accounts are not permitted. Only pre-existing accounts are used for system maintenance and administration.

## **Monitor System Activity**

System security stands on three legs: good security protocols, proper system configuration, and system monitoring. Auditing and reviewing audit records address this third requirement.

## **Keep Up To Date on Latest Security Information**

Oracle continually improves its software and documentation. Check this document every release for revisions.



---

---

## Secure Installation

All software is pre-installed in the VTSS appliance. The only step to secure the system is to change the VSM administrator account password.

Data is compressed and sent in a proprietary format including predominance of intercommunication with legacy systems that are currently installed in customer environments. IP communication should be on a private, dedicated network that provides encryption built into the IP infrastructure.



---

---

## Security Features

There are no configurable security features offered in the VTSS appliance.



---

---

## Secure Deployment Checklist

The following security checklist includes guidelines that help secure the VTSS appliance:

1. Reset the VSM administrator account at initial power-up of the appliance.

