Oracle® StorageTek Virtual Operator Panel

Security Guide

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Part 1: Overview

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

Product Overview

Oracle's StorageTek Virtual Operator Panel (VOP) is a suite of Java applications that provide a graphical user interface for managing tape drives. It is used by customers and service engineers to: view, set or modify configuration parameters, display or monitor status, and perform diagnostics, troubleshooting, and service tasks (for example, download firmware).

General Security Principles

The following principles are fundamental to using any application securely.

Keep Software Up To Date

One of the principles of good security practice is to keep all software versions and patches up to date. Throughout this document, we assume VOP version of 2.0 or later.

Restrict Network Access

Keep VOP application behind a firewall, in a secure, data center environment. Also, if possible, it is preferable to install VOP application on a server on a private LAN. The firewalls provide assurance that access to these systems is restricted to a known network route, which can be monitored and restricted, if necessary. *Note: VOP application is not designed to have public or internet access*.

Follow the Principle of Least Privilege

The principle of least privilege states that users should be given the least amount of privilege to perform their jobs. User privileges should be reviewed periodically to determine relevance to current job responsibilities.

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 note yearly for revisions.

Part 2: Secure Installation and Configuration

Installation Overview

This section outlines the planning process for a secure installation.

Understand Your Environment

VOP is intended to be used in a secure environment. Be sure to install on computers, and in networks, that are in a secure environment, for both physical access and network access.

Installing VOP

For more information about installing VOP see StorageTek Virtual Operator Panel User's Guide (Part Number: E37053-01).

Post Installation Configuration

In this section document any security configuration changes that must be made after installation.

Change default user passwords.

Security is most easily broken when a default user account still has a default password even after installation.

Enforce password management.

Apply basic password management rules, such as password length, history, and complexity, to all user passwords.

Part 3: Security Features

In this section outline the specific security mechanisms offered by the product.

The Security Model

Because the intended environment for VOP is a secure, data center environment, the security model for VOP is minimal, and depends on the computer and network being physically secure.

For legacy tape drives (for example, StorageTek 9840D, T10000C, IBM LTO5, HP LTO5, and earlier) the protocols used are telnet (port 23) and FTP (port 20, 21), which are unencrypted.

Beginning with this release (VOP 2.0), and future drives which support it, SSH and SFTP are the defaults.

Part 4: Appendices

Appendix A: Secure Deployment Checklist

1. Keep VOP and the tape drives it manages behind the corporate firewall.
2. Harden the Solaris or Linux operating system.
3. Apply all security patches and workarounds.
4. Contact Oracle Support if you come across vulnerability in Oracle VOP.

Appendix B: Open Ports

The following table lists the default ports that might be open on [VOP].

Port	Protocol	Service	Open by Default?
22	TCP	SSH	Yes

References

VOP Documentation

The VOP documentation is saved in libraries organized by VOP release. Access this from Tape Storage Documentation page.