



APPENDIX **B**

Offline Data Recovery in Cisco SME

The Cisco SME solution provides seamless encryption service through a hardware-based encryption engine. However, when the MSM-18/4 module or the Cisco MDS 9222i fabric switch is not available, you can use the Offline Data Restore Tool (ODRT).

This appendix describes the basic functionalities and operations of this software application.

About Offline Data Restore Tool

The Offline Data Restore Tool (ODRT) is a standalone Linux application and is a comprehensive solution for recovering encrypted data on tape volume groups when the MSM-18/4 module or the Cisco MDS 9222i switch is unavailable. The Offline Data Restore Tool (ODRT) reads the tape volumes, encrypted by Cisco SME, and decrypts and decompresses the data and then writes clear-text data back to the tape volumes.

Figure B-1 shows the topology supported by the Offline Data Restore Tool (ODRT).

Figure B-1 Offline Data Restore Tool (ODRT) Topology



The encryption and decryption of data works in the following two steps:

- Tape-to-disk– The Offline Data Restore Tool (ODRT) reads the encrypted data from the tape and stores it as intermediate files on the disk.
- Disk-to-tape– The Offline Data Restore Tool (ODRT) reads intermediate files on the disk, decrypts and decompresses (if applicable) the data and writes the clear-text data to the tape.

The decryption key is obtained from the volume group file which you need to export from the Cisco Key Management Center (KMC). For information on exporting volume groups, see [Chapter 6, “Cisco SME Key Management.”](#)

The Offline Data Restore Tool (ODRT) feature is invoked by entering the **odrt.bin** command from the Linux shell.

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For more information about the **odrt.bin** command, see [Appendix A, “Cisco SME CLI Commands.”](#)

**Note**

The Offline Data Restore Tool (ODRT) is currently supported only in Red Hat Enterprise Linux 5.
