Upgrading the TED Using the Universal TED Updater Technical Reference

Overview

Introduction
The Universal TED Updater includes Transaction Encryption Device (TED) application software and firmware for all TED platforms. This includes:

- TED 4 on a UCS200-M server with an nCipher HSM card
- TED 3 on a Netra 4200X server with a Sun/Oracle SCA6000 HSM card
- TED F/X with a Rainbow CryptoSwift CryptoGraphic Accelerator card

After installing release 1.0.x of the Universal TED Updater onto the Digital Network Control System (DNCS), you must then push the application to the TED server. This document provides all the necessary procedures.

Purpose
Use this document to install the Universal TED Updater 1.0.x onto the DNCS.

Audience
This document is written for network system administrators, DNCS operators, and field service engineers responsible for installing the TED server. System administrators should have extensive working experience within their network architecture and with using UNIX-based text editors.

Document Version
This is the first formal release of this document.
Installing the Universal TED Updater

Remove the SAITedUpd Package from the DNCS

Because the Universal TED Updater package is a new and unique SAI package, the existing TED Updater package is no longer needed. Before installing the new Universal TED Updater (SAIUniTedUpd) package, you must remove the existing TED Updater (SAITedUpd) package from the DNCS.

Complete the following steps to remove the SAITedUpd package from the DNCS.

1. If necessary, open an xterm window on the DNCS.
2. Complete the following steps to log on to the xterm window as root user.
   a. Type su - and press Enter. The password prompt appears.
   b. Type the root password and press Enter.
3. Type the following command and press Enter to verify that the SAITedUpd package is installed on the DNCS.
   pkginfo -l SAITedUpd | grep VER
   Note: In some cases, the SAITedUpd package may not exist on your DNCS. If it does not exist, you can skip the rest of this procedure.
   Result: The package version is displayed.
   Example:
   
   # pkginfo -l SAITedUpd | grep VER
   VERSION:  3.1.0.8

4. Type the following command and press Enter.
   pkgrm SAITedUpd
   Result: You are prompted to confirm the removal of the package.
5. Type y and press Enter.
   Result: When the script completes, you should see the following message:
   Removal of <SAITedUpd> was successful.
6. Repeat step 3 to confirm the package removal.
   Result: The following message should appear.
   # pkginfo -l SAITedUpd | grep VER
   ERROR: information for "SAITedUpd" was not found.

Install the Universal TED Updater on the DNCS

Complete the following steps to install the Universal TED Updater (SAIUniTedUpd) 1.0.x package on the DNCS.

1. Open an xterm window on the DNCS and log in as root user.
2. Type the following command and press Enter to source-in the environment variables.
   . /dvs/dncs/bin/dncsSetup
   Important: Be sure to type the period followed by a space before typing /dvs.
Installing the Universal TED Updater

3 Insert the CD labeled **SAIUniTedUpd 1.0.x** into the CD drive of the DNCS.

4 Once the CD has mounted, type the following command and press **Enter**.
   ```bash
cd /cdrom/cdrom0
   
   Type the following command and press **Enter** to install the SAIUniTedUpd package.
   ```
   ```bash
   install_pkg
   
   **Result:** You are prompted to confirm the installation of the package.

   ```
   # install_pkg
   checking the system, please wait...
   This script will install the following packages on "conanv880":
   SAIUniTedUpd  Universal TED Update 11-17-11 1.0.0
   
   Are you sure you want to continue? [y,n,q]
   ```

5 Type **y** and press **Enter**.
   **Result:** The installation of the package begins. When the installation completes, the following message appears.

   ```
   Installation of <SAIUniTedUpd> was successful.
   For more SAIUniTedUpd package installation messages refer to:
   /var/sadm/system/logs/SAIUniTedUpd_1.0.0_install.log
   ```

6 Access the /var/sadm/system/logs/SAIUniTedUpd_x.x.x_install.log and check for any errors. Did any errors occur?
   - If **yes**, contact Cisco Services for assistance.
   - If **no**, continue with step 8.

7 Type the following command and press **Enter** to verify that the SAIUniTedUpd package installed successfully and that the correct version is installed.
   ```bash
   pkginfo -1 SAIUniTedUpd
   
   * pkginfo -l SAIUniTedUpd
      PKGINST: SAIUniTedUpd
      NAME: Universal TED Update 11-17-11
      CATEGORY: application
      ARCH: SunOS_sparc
      VERSION: 1.0.0
      BASEDIR: /dvs
      VENDOR: Cisco Systems, Inc
      DESC: Universal TED Update 11-17-11
      PSTAMP: flash20111117152733
      INSDATE: Nov 18 2011 11:25
      STATUS: completely installed
      FILES:
       42 installed pathnames
       3 shared pathnames
       6 directories
       31 executables
       174202 blocks used (approx)
   ```

8 Type **cd** and press **Enter** to make the root directory the working directory.

9 Type **eject cd** and press **Enter** to eject the CD from the DNCS.
Installing the Universal TED Updater

Push the TED Application from the DNCS to the TED

Complete the following steps to push (install) the appropriate TED application to the TED server.

Important: These steps should be performed during a maintenance window.

1 From a dncs xterm window, type the following command and press Enter.
   dncsStop
   Result: You are prompted to confirm stopping the DNCS processes.

2 Type y and press Enter.

3 Type the following command and press Enter.
   dncsKill

4 Return to the root xterm window and type the following command and press Enter.
   /dvs/dncs/TED/update/updateTED
   Result: The upgrade process begins and you are prompted to enter the host name for the site you want to add to the known hosts.

Note: The first time you run the updater, you are asked to add the host name and the IP address of the TED server. This process adds the TED server as a known host and creates a public/private key that is used for identification when the SSH protocol is invoked.

5 Type the host name for the TED server, such as dncsted, and press Enter.
   Result: You are prompted for the IP address for the host.

6 Type the IP address for the host name you added, such as 192.168.1.2, and press Enter.
   Result: The information you entered in steps 5 through 6 appears and you are prompted to continue the installation.

   Determining the encryption server version...
   Enter the host name of the site you are adding: dncsted
   Enter the IP address of the site you are adding: 192.168.1.2
   The following line will be added to /etc/hosts:
   192.168.1.2   dncsted
   Do you want to continue? [y,n,q]?

7 Type y and press Enter.
   Result: You are prompted for the root password to the site you are adding.
8. Type the root password for the TED and press Enter.

Result: A set of specific keys is created for the exclusive use of this TED and the current status of the TED server appears. You are prompted to continue with the installation.

<table>
<thead>
<tr>
<th>root@dncest's password:</th>
</tr>
</thead>
<tbody>
<tr>
<td>generating root public/private keys...</td>
</tr>
<tr>
<td>generating public/private dsa key pair.</td>
</tr>
<tr>
<td>your identification has been saved in ./ssh/sitekey.</td>
</tr>
<tr>
<td>your public key has been saved in ./ssh/sitekey.pub.</td>
</tr>
<tr>
<td>The key fingerprint is:</td>
</tr>
<tr>
<td>0x1bf:06:ea:80:76:99:3b:03:ed:0a:13:66:2a:76:32 root@conanv880</td>
</tr>
<tr>
<td>Done.</td>
</tr>
<tr>
<td>When you are asked, provide the hostname, ip and root password for the TED.</td>
</tr>
<tr>
<td>Currently installed TED status:</td>
</tr>
<tr>
<td>Architecture: TED3</td>
</tr>
<tr>
<td>Platform: Sun Microsystems : Netra X4200 M2</td>
</tr>
<tr>
<td>Firmware version: 1.1.8</td>
</tr>
<tr>
<td>Module installation version: 1.0.5</td>
</tr>
<tr>
<td>Software version: 3.1.0.10</td>
</tr>
<tr>
<td>Update package status:</td>
</tr>
<tr>
<td>Firmware version: 1.1.8</td>
</tr>
<tr>
<td>Software version: 3.1.0.11</td>
</tr>
<tr>
<td>NOTE: The TED server needs to be updated.</td>
</tr>
</tbody>
</table>

9. Type y and press Enter.

Result: The package files are pushed from the DNCS to the TED server. When the installation completes, the current status of the TED server appears and the TED server reboots.

Note: This step can take as long as 5 minutes to complete.

| Pushing over required package files... |
| Running the install script on the TED: Please be patient... |
| checking the version on the TED... |
| Currently installed TED status: |
| Architecture: TED3 |
| Platform: Sun Microsystems : Netra X4200 M2 |
| Firmware version: 1.1.8 |
| Module installation version: 1.0.5 |
| Software version: 3.1.0.11 |
| Update package status: |
| Firmware version: 1.1.8 |
| Software version: 3.1.0.11 |
| NOTE: The installed version is current. |
| The TED server is rebooting and it will be a few minutes until it is ready. |
| TED updated. |
| Update finished. |

10. From a dncest xterm window, type the following command and press Enter.

   ping -s dncested

   Note: When the TED can be pinged, it is back online.

11. From the dncest xterm window, type the following command and press Enter to restart the DNCS processes.

   dncsStart

12. Type the following command and press Enter to launch the Administrative Console.

   admincon

13. Launch the DNCS process tree from either the WUI (SR4.3/SR4.2) or from the Process Status tab (SR 5.0 or later). All processes should be green.
For Information

If You Have Questions

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.