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Sun Services Tools Bundle (STB)
Frequently Asked Questions (FAQs)

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Oracle Services Tools Bundle (STB) Frequently Asked Questions

Introduction

This document provides frequently asked questions and answers for the Services Tools Bundle (STB) software.

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About Services Tools Bundle (STB)

Question: What is Services Tools Bundle (STB)?

Answer: STB is a bundling of the underlying components, and any applications, packages, libraries, and sub components on which those component applications depend, wrapped with a smart installer. The installer is aware of any installation—order dependencies between the components, along with any interdependencies between them. Further, the installer will be aware of the opt-in or opt-out status of each of its components.

Service Tags (ST) is an important base component for the SunMicrosystems, Inc. product registration. Products first need to be tagged before they can be registered. When Service Tags is installed, it creates a tag for the Solaris operating system. Explorer will create a Service Tag for itself if Service Tags is installed. STB installer is aware of this dependency and will try to install Service Tags prior to Explorer. Explorer collects any Service Tags present on the system for delivery back to Sun. Those Service Tags, when combined with a Sun Online Account name, can be used to create product registrations for both Solaris and Explorer.

STB itself is available in the Sun standard operating system and architecture-specific manner, as a self-extracting installer. The prerequisite XML Libraries are included.

STB 5.2 contains the following components:

- SNEEP 2.8
- Explorer 6.4

> **Note** – STB will be the only avenue for obtaining and installing Explorer except the EIS-DVD.

- Service Tags 1.1.5
- XML libraries 2.4.12 or higher
- Light Weight Availability Collection Tool 3.2
- Solaris Crash Analysis Tool (Solaris CAT) 5.2

STB supports OpenSolaris via a new script **`install_stb_opensol.sh`**. This script is aware of the IPS packaging mechanism on OpenSolaris and delivers/install Explorer in IPS form.

Question: Why was the Services Tools Bundle created?

Answer: The STB was created to bring key Sun serviceability applications together into a single, consolidated, unit for delivery to both customers and field personnel. By bundling these applications together as a unit, any interdependencies between them can be handled by the STB installer.

Question: On what architecture or machines does the Services Tools Bundle run?

Answer: STB currently runs on Solaris SPARC, OpenSolaris, and Solaris x86 architectures.

Question: Will the installation components vary based on the operating system version in which the Services Tools Bundle is installed?

Answer: Yes. Components for installation will be decided based on the operating system (OS) version and architecture.

Question: What has changed since the last version of the Services Tools Bundle?

Answer: STB includes the following updates:

- SNEEP 2.8
- Explorer 6.4
- Service Tags 1.1.5
- Light Weight Availability Collection Tool 3.2

Question: With Explorer download being decommissioned, what will replace it?

Answer: STB download will replace Explorer download. Only STB will be available for download.

Packages Bundled in ServicesTools Bundle

Question: What packages are bundled along with the Services Tools Bundle installer?

Answer: The following packages are bundled in STB:

- **SNEEP 2.8 Packages**
  SUNWsneep – Serial Number in the electrically erasable programmable read-only memory (EEPROM)

- **Explorer 6.4 Packages**
  SUNWexplo - Sun Explorer Data Collector
  SUNWexplu - Sun Explorer Data Collector Config Files

- **Service Tags 1.1.5 Packages** (OS specific)
  SUNWservicetagr - Service Tags (root)
  SUNWservicetagu - Service Tags (Usr)
  SUNWstosreg - Service Tags Solaris OS Registration
  SUNWpsn - Product Serial Number Collector
  SUNWsthwreg -Hardware Service Tag Registration

- **XMLlibraries 2.4.12** or higher
  SUNWlxml - The XML library
  SUNWlxmlx - The XML library (64-bit)

  XML libraries are prerequisite for Service Tag packages. These packages may not be present on operating system (OS) SPARC 5.8 and SPARC 5.9 by default. The installation script will install the XML libraries only on (OS) SPARC 5.8 and SPARC 5.9 if they are not present by default during Service Tags installation.

- **Light Weight Availability Collection Tool 3.2 Packages** (Architecture specific one for SPARC and one for x86)
  SUNWlwact - Lightweight Availability Collection Tool

- **Solaris Crash Analysis Tool 5.2**
  SUNWscat - Solaris Crash Analysis Tool

Note – The correct order of installation of STB modules is as follows (from first to last installed):

1. SNEEP Packages (**SUNWsneep** – Serial Number in EEPROM)
2. Product Serial Number Collector (**SUNWpsn**)
3. XML libraries (**SUNWlxml, SUNWlxmlx**)

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4. Service Tags Packages (`SUNWservicetagr, SUNWservicetagu, SUNWstosreg, SUNWsthwreg`)

5. Explorer Packages (`SUNWexplo, SUNWexplu`)

6. Light Weight Availability Collection Tool Packages (`SUNWlwact` one for SPARC and one for x86)

7. Solaris Crash Analysis Tool

Question: On what operating system version does the Services Tools Bundle run?

Answer: STB currently runs on the following operating system (OS) versions and the combinations of the components has been listed below:

1. **Solaris 10/SPARC:** Explorer 6.4 + Service Tags 1.1.5 + LWACT 3.2 +SNEEP 2.8 + Solaris Crash Analysis Tool 5.2
2. **Solaris 9/SPARC:** Explorer 6.4 + Service Tags 1.1.5 + LWACT 3.2 +SNEEP 2.8 + Solaris Crash Analysis Tool 5.2

   Note – XML libraries 2.4.12 or later are prerequisites for Service Tags.

3. **Solaris 8/SPARC:** Explorer 6.4 + Service Tags 1.1.5 + LWACT 3.2 +SNEEP 2.8 + Solaris Crash Analysis Tool 5.2

   Note – XML libraries 2.4.12 or later are prerequisites for Service Tags.

4. **Solaris 7 and earlier/SPARC:** Explorer 6.4 + LWACT 3.2 +SNEEP 2.8 (No Service Tags) + Solaris Crash Analysis Tool 5.2
5. **Solaris 10/x86:** Explorer 6.4 + Service Tags 1.1.5 + LWACT 3.2 + SNEEP 2.8 + Solaris Crash Analysis Tool 5.2
6. **Solaris 9/x86:** Explorer 6.4 + LWACT 3.2 + SNEEP 2.8 (No Service Tags)
7. **OpenSolaris:** Explorer 6.4

Question: Is there a way to install only a particular Services Tools Bundle component?

Answer: Yes. Based on user inputs, STB installer will install only specific packages.

Question: Is SNEEP a prerequisite for Explorer and LWACT now? Why?

Answer: Yes. STB5.3 and higher versions mandates the presence of SNEEP package on the system where Explorer or LWACT is chosen for installation. This is done to ensure serial number consistency across SNEEP, Explorer and LWACT.

Question: Do I need to upgrade SNEEP every time I upgrade Explorer?

Answer: Although it is not mandated with Explorer installation, it is recommended to have the latest version of SNEEP installed on the system.

Question: Can I install SNEEP without installing Explorer?

Answer: Yes. SNEEP can be installed without installing Explorer. However ,Explorer installation requires SNEEP packages to be present on the system.

Question: Are there any prerequisite for installing LWACT using STB?

Answer: LWACT 3.2 installation requires SNEEP and Explorer 6.0 or higher to be present on the system.

Question: Does the installation dependency among SNEEP, Explorer, and LWACT also apply to package extraction?

Answer: No. Extract option of STB does not check for package dependencies.

Question: I had hostname/hostid tags saved in EEPROM with their respective values. After STB 5.3 installation, they got erased. Why?

Answer: SNEEP 2.8 and higher does not support setting values for hostname/hostid tags in EEPROM as they are system commands. So STB 5.3 and higher erases the residual entries for hostname/hostid from EEPROM.

Question: Can STB 5.3 and higher detect and notify user about serial number inconsistency across data sources available on the system?

Answer: Yes, STB 5.3 and higher detects serial number inconsistency across data sources available on the system with help of SNEEP , attempts to make data sources consistent running the `sneep start` command and notifies user about the consistency of the data sources.

Downloading and Installing Services Tools Bundle (STB)

Question: How do I obtain the Services Tools Bundle?

Answer: Use the following procedure to download the latest STB:

1. Go to the STB download section of the Download Center:
   http://www.sun.com/service/stb/index.jsp
2. In the drop-down lists, select the appropriate Platform and Language for your download.
3. Review the STB License Agreement and mark the *I agree* check box to proceed with downloading. The Sun Download Center might require you to log in before proceeding.
4. To download the installer, complete one of the following steps:
   - For Solaris, click **install_stb.sh**.
   - For OpenSolaris, click **install_stb_opensol.sh**.

Question: How do I run the Services Tools Bundle?

Answer: Consult the help option for usage. After downloading the STB installer, run the below help options:
- For Solaris, type: **./install_stb.sh -help**
- For OpenSolaris, type: **./install_stb_opensol.sh -help**

Question: How much space is required to run the Services Tools Bundle?

Answer: The minimum temporary space (/tmp) required to run Services Tools Bundle is the following:

- For Solaris: 210 MB of free space in **/tmp** directory
- For OpenSolaris: 53MB of free space in **/tmp** directory

Question: In order to install a newer version of the Services Tools Bundle, should I remove the previous version?

Answer: No, the STB installer will help you uninstall the existing version and install a newer version if you choose *yes* to the upgrade option.

Using Services Tools Bundle (STB)

Question: Where can I find the log files of the Services Tools Bundle installer?

Answer: All STB installer events (success or failure) on a system are logged under **/var/log/install_stb-v**<*STB_VERSION*>**.log**

Question: Will I be able to run the STB installer without any user intervention?

Answer: Yes, the *auto* option can be used to run STB installer in a non-interactive mode; however, there is no *auto* mode available for the OpenSolaris version of STB. The OpenSolaris version can only be run interactively.

Question: What is the default option for the STB installer?

Answer: The default option for STB installer is *manual*, where installer runs in *interactive* mode.

Question: Does STB support command-line arguments?

Answer: For information, consult the help option for usage; type: **./install_stb.sh -help**.

Question: If I do not have enough space in **/tmp**, can I still install STB?

Answer: Yes, 5.2 and higher versions of STB facilitates an option to unpack STB temporary files in alternate location. This can be achieved by setting an environment variable **STB_INST_PATH** before running STB.

For example, if you want to use **/var** for temporarily unpacking and installing STB components:
export STB_INST_PATH=/var
./install_stb.sh
This will unpack all temporary files in **/var/STBinstall** directory.

Note – You need 210 MB free space to unpack temporary files.

Question: How do I extract STB packages to a non-default directory?

Answer: STB, by default, extracts all its packages to **/var/tmp/stb/extract** directory. However, starting from STB 5.2, packages bundled in STB can be extracted into non default directory by exporting an environmental variable **STB_EXT_PATH**.

For example if one wants to extract the packages to user defined path such as /tmp/foo:

export STB_EXT_PATH=/tmp/foo
./install_stb.sh -runmode auto -ext

This will extract all STB packages to **/tmp/foo/stb/extract** directory.

Question: Can I run STB from a non-global zone?

Answer: Yes. STB can be run from non global zone. However, only Service Tags, SNEEP and Solaris CAT can be installed or extracted in non global zones. Explorer and LWACT can be installed only from global zone.

Question: As I try to install Service Tags using STB, I get the message "Service Tag dependency failed" and the installation of Service Tags is skipped. Why does this happen?

Answer: Service Tags depends on a number of packages without which it may not function properly. STB 5.2 and higher versions checks for the list of all service tags dependency packages before installing it. If one or more of these dependent package is found missing, STB skips Service Tags installation with the information on the missing packages.

Question: What happens if STB is interrupted while it is run?

Answer: If STB is interrupted during installation of a package, it attempts to clean up any partial installation that it creates. Also, STB displays the list of already completed installations during that run. User can manually remove them, if needed. Similarly, if STB is interrupted during extraction of packages, a message is displayed asking the user to remove the extracted packages manually. If STB is interrupted while it performs other tasks, it updates the log file, removes the traces of any transient files that it placed on the system and exits gracefully.

Question: After I interrupt the STB installation by pressing *Ctrl+C* continuously I find partially installed STB component in system. Why is that so?

Answer: STB, when interrupted, attempts to clean up partial installation from the system. But if user interrupts the clean up process continuously, it can abort package removal process, leaving behind partial installation. In this case, user has to manually cleanup the partially installed packages.

Question: If system has any STB component partially installed, can STB detect that? How are these packages handled by STB?

Answer: Yes, STB when invoked, can detect partial installation of its components, if any. When STB is invoked in manual mode, user will be prompted for overwriting the partially installed package. If user agrees, STB will remove the corresponding partially installed component and install the bundled version completely. In auto mode, any partial installations of the components will automatically be overwritten by the corresponding bundled versions.

Question: Does STB support handsoff/jumpstart installation?

Answer: No, currently STB does not support jumpstart installations. However, each of the bundled application components in STB support jumpstart installation. Therefore, the bundled packages can be extracted from STB and can be used in custom jumpstart installations.

Note: All application packages bundled in STB require admin file for handsoff installation. You can use the below shown admin file for this purpose:

```
-bash-3.00# cat admin #
# Copyright (c) 2010 Sun Microsystems, Inc. All rights reserved.
# SUN PROPRIETARY/CONFIDENTIAL.
# Use is subject to license terms.
#
#ident  "@(#)default    1.7     04/12/21 SMI"
#
mail=
instance=overwrite
partial=nocheck
runlevel=ask
idepend=nocheck
rdepend=nocheck
space=ask
setuid=nocheck
conflict=nocheck
action=nocheck
basedir=default
```

Note: `SUNWsneep` expects a response file during handsoff installation. You can use the below shown response file for this purpose:

```
-bash-3.00# cat response
BASEDIR=/opt/SUNWsneep
ADDTOBIN=yes
ALTERNATEBIN=/usr/sbin
INSTALLPLUGIN=yes
```

Question: Do we have any uninstallation script for STB?

Answer: STB does not provide a script to remove packages installed by it. This is due to the interdependency between the packages and also due to the criticality of the functionality rendered by these packages instances on the system.

Although STB does not provide any uninstaller script, one can manually remove the packages installed by STB using the Solaris **pkgrm** utility.

For example, one can remove LWACT from system by executing the below shown command:

    pkgrm SUNWlwact

STB for OpenSolaris

Question: Why does STB for OpenSolaris contain the Explorer application only while STB for Solaris contains many more applications?

Answer: Of all the STB components, at present, only 6.0 and higher versions of Explorer supports the OpenSolaris platform. Other applications (such as Service Tags, Light Weight Availability Tool, SNEEP, SCAT) do not support OpenSolaris. These components will be added to the STB for OpenSolaris bundle when they extend their support to OpenSolaris.

Question: Why am I not allowed to use http://opensolaris.org as my depot server to publish the packages?

Answer: Opensolaris.org is a depot server for OpenSolaris users. Only OpenSolaris community users will be able to publish packages to this server. Hence, STB does not allow anyone to publish STB packages to opensolaris.org.

Question: Do I need a dedicated machine as depot server?

Answer: A dedicated machine is not required. depot server is a service and it is started via the SMF actuators by the STB. The service will run on a dedicated port (chosen by the user) and the machine can still be used for other purposes.

Question: What hardware and software features are required for a system to qualify as depot server?

Answer: The system must be running OpenSolaris. This requirement constitutes all other needs to qualify as a depot server.

Question: I have read that Explorer installation in OpenSolaris requires client server architecture. If I install OpenSolaris in an isolated box, can I still install Explorer?

Answer: Yes, a local box can act as server where STB will publish the package. The same box can then act as a client and Explorer can be installed on that box.

Question: In OpenSolaris, why does STB sometimes prompt for the remote host login?

Answer: Installation of IPS packages require pkg service to be running on the server. If this service is not running on the server, STB will try to start it, which requires access to that machine with sufficient privilege.

Question: Do I need to set the depot server in my authority list?

Answer: No, STB will do that for you.

Question: Do I need an Internet connection to install Explorer in OpenSolaris?

Answer: Unlike most packages in OpenSolaris, which requires an Internet connection to directly install from the server, STB has no such limitation. STB will set a depot server locally and then install packages from there.

Question: I receive the following error message when I run STB: "Unable to restart pkg service on *<Preferred host>*." What does it mean?

Answer: STB tried to start up the depot service on your preferred host and it failed, probably due to intermittent, network issues/delays. To overcome this, wait for a few minutes and then try re-running the installer on your host again. If the problem persists, contact Sun's support team.

Question: I receive the following error message when I run STB: "Unable to refresh packages in *<HOSTNAME>*." What does it mean?

Answer: STB tries to update the catalogs on the concerned host so as to be in sync with the packages on their corresponding depot servers. The error log suggests that this update has failed. It could have failed due to transient network connectivity issues. To overcome this, wait for a few minutes and then try re-running the installer on your host again. If the problem persists, contact Sun's support team.

Question: I'm seeing an error message about "Refreshing the package catalog..." What does it mean and why does it occur?

Answer: The complete error message follows:

```
Refreshing the package catalogs..
pkg: 1/2 catalogs successfully updated:
    Could not retrieve catalog from 'opensolaris.org'
URLError, reason: (8, 'node name or service name not known')
```

In IPS packaging mechanism, the packages are published onto a central server (such as the depot server) and clients later download and install those packages from the server. A client maintains an 'authority list' where all these servers are listed. By default, on all OpenSolaris boxes, 'opensolaris.org' is listed as an authority.

Before installing the packages from a depot server, STB installer script has to refresh the package catalogs to check for any updated packages on the corresponding depot servers. Thus, when STB tries to update the catalogs of the listed authorities, it tries to check 'opensolaris.org' server as well for any package updates. This error occurs if the host is unable to connect to this server.

This error can be ignored as this has no effect on the functionality of STB. You can avoid this error by manually unsetting the concerned opensolaris.org authority from the authority list. Please refer to the IPS client utility: 'pkg unset-authority' for more information.

Question: Even when I enter the correct user credentials, STB fails to start the pkg service; why does this happen?

Answer: Your login probably does not have enough privilege to start the pkg service on the server. If you had attempted logging in as root user, this may be due to security settings on the systems that does not allow direct root access.

Question: While trying to publish packages, why does STB fail with a `pkgsend` error?

Answer: If STB fails with a `pkgsend` error, check your depot server settings and ensure that it has been configured as read only. Also, check your network settings to ensure that the http communications with the concerned depot server are successful.

Contacts and Support

Question: How do I get Support for STB and its bundled applications?

Answer: STB Support: To obtain information about STB and search for similar problems reported, go to http://sunsolve.sun.com and search for **STB**. If you are unable to resolve the problem and have a SunSpectrum support contract, contact your local Customer Care Center and request the *Explorer* queue.

Individual support path for STB's component applications are as follows:

- Explorer Support - mail to: Explorer@sun.com
- LWACT Support - Raise a support request in IBIS
- SolarisCAT Support - mail to: SolarisCAT_Feedback@sun.com
- SNEEP Support - mail to: sneep-support@sun.com or raise a support request in IBIS
- Service Tags Support - Raise a ticket in Radiance

Note – To Raise a support request in IBIS, you need to have SunSpectrum support contract, contact the Customer Care Center and request the appropriate queue.