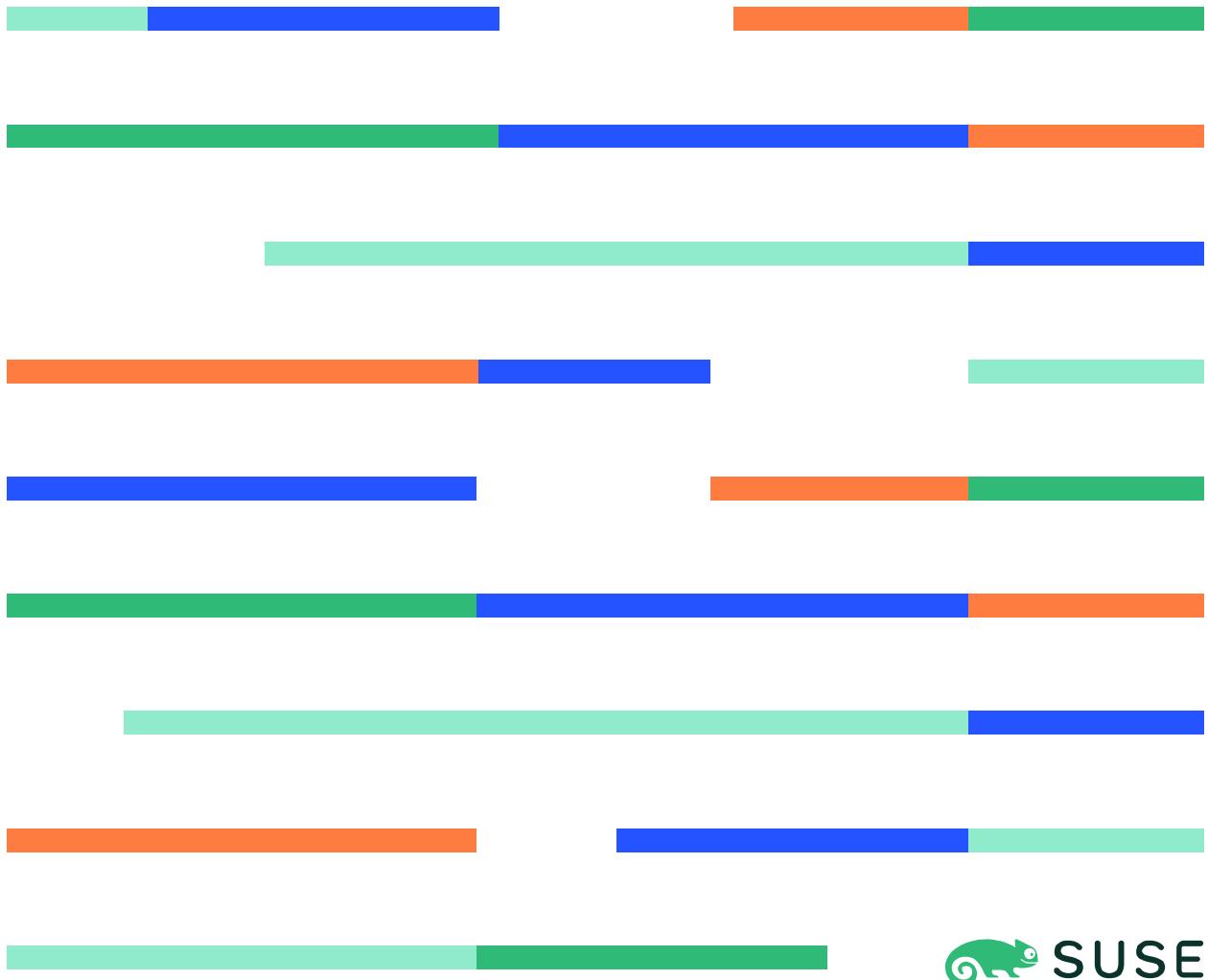


SUSE YES System Certification Kit 9.0

SUSE Linux Enterprise – TestConsole
Setup and Configuration



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About This Guide

The Server Yes Certification Test Kit for SUSE® Linux contains a procedure manual and all test tools necessary to test the SUSE® products used in the SUSE Yes Certified™ system certification process. The manual explains how to install the software and set up hardware and software configurations.

Audience

This manual is intended for users who have experience with computers, networking, Linux, and Microsoft Windows.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please contact your SUSE partner contact for feedback.

Documentation Updates

For the most recent version of the System Test Tools and documentation, visit System Test Tools for SUSE LINUX <https://www.suse.com/partners/ihv/yes/system-test-tools-for-suse-linux.html>.

Additional Information

For more Information on YES Certification, see:

SUSE YES Certified Program <https://www.suse.com/partners/ihv/yes/>

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1 Setting Up TestConsole

This document is to be used to set up TestConsole(TC). The TestConsole is the controller for the YES Certification tests which will be exercised on the system which you will be testing. This document is intended for users with SUSE Linux experience, but all instructions are listed step by step and should be suitable for a novice SUSE Linux user. Please follow all steps in the order which they are listed.

Minimum Hardware Requirements for the TestConsole System (TC)

- ✓ AMD 64 or Intel EM64T server class system (x86_64 architecture) system.
(Problems with non-server-class TC systems may not be supported by SUSE).
We DO NOT support ARM systems as the TestConsole(TC).
- ✓ Direct access to the system under test (SUT). Do not use remote access, do not use SSH.
- ✓ Server-class amounts of RAM and hard disk space (should be greater than OS supported minimums).
- ✓ Serial Port and Null modem serial cable (required if testing SUT serial port).
- ✓ 1 NIC ports or more depending on SUT, (NIC Speed must match the highest capable speed of the SUT NIC).
- ✓ We recommend UEFI be enabled during testing if the SUT supports UEFI.
- ✓ Secure Boot is not required to be enabled during testing, it is optional. We recommend that Secure Boot is disabled on the TC during testing.

1.1 Installing SLES 15 SP5 on TC

This section will lead the user through the steps to install the OS onto the TC. Estimated time to complete: 35 minutes. 15 of the minutes will be following the steps below. The other 20 minutes is waiting for the OS to install onto the TC. The estimated time does not include downloading and creating the OS USB bootable Thumb drive or deleting information from the existing partitions.

1. Delete all existing partitions from all hard drives. Please see the Troubleshooting and Help document, Section 1.1 "Removing the ELIO Boot Tables" for instructions which will delete any and all existing partitions. If this step needs to be



completed, it can take up to 4 minutes.

2. We recommend disabling Secure Boot in the hardware on the TC.
3. Use a SLES system to create a SLE 15 SP5 bootable Installation thumb drive to be used to install SLES 15 SP5 onto the TC. You will need at least a 16 GB thumb drive. The SLE 15 SP5 OS files will use about 12 GB of disk space on a hidden partition which is created on the thumbdrive. The process may take minutes to complete.
 - a. Make sure that the SLE 15 SP5 ISO Image is copied onto a SLES 12 SP5 or newer system hard drive.
 - b. Plug the USB thumb drive into the SLES system from step 3.
 - c. Open a terminal.
 - d. Type `dd if=PATH_TO_SLE_15_SP5_ISO_IMAGE of=USB_STORAGE_DEVICE bs=4M`. Example:
`dd if=/tmp/SLE-15-SP5-Full-x86_64-GM-Media1.iso of=/dev/sdb bs=20M`.
 - e. After the bootable thumb drive creation is completed, unmount and remove the USB thumb drive.
4. Plug the SLE 15 SP5 bootable installation thumb drive into your TC.
5. Boot your TC to the SLES 15 SP5 bootable installation thumb drive.
6. Select *Installation* <Enter> before the 20 second timeout expires.
7. Select the *English (US)* Language.
8. Select the *English (US)* Keyboard Layout.
9. Click on SUSE Linux Enterprise Server 15 SP5, then click Next.
10. Select *I Agree to the license terms*, then click *Next*.
11. Click on the Hostname/DNS tab in the Network Settings screen. You may need to be on a secluded network to see this tab screen.
12. *Edit* the Static Hostname to be TC. No spaces allowed in the hostname.
13. Click on the *Overview Tab* in the Network Settings screen.
14. Configure the Network Settings.
 - a. Click on a *Network Adapter (NIC)* in the Name list window. It is recommended to start with the eth0 NIC.
 - b. Click *Edit*.



- c. If not already selected, click the *statically assigned IP Address* radio button. Below is a table displaying the TC NIC ports associated IP addresses and the relationship to the SUT NIC ports. The table provides the big picture for configuring the test environment. The TC must be configured to accommodate the NIC ports in the SUT. The TC can have as many physical NIC port's as needed to have up to a 1 to 1 NIC port to correlate to the SUT. Alias IP addresses can also be on the TC used when the TC does not have enough NIC ports to match the SUT. Refer to Table 1-1 for IP address configuration pattern.

Table 1-1 TC and SUT IP Address Mapping

TC NIC	TC IP Address	Notes	Switch	SUT NIC	SUT IP Address	Notes
ETH 0	10.1.1.2	NIC 1	1	ETH 0	10.1.1.1	NIC 1
ETH 1	10.1.2.2	NIC 2	2	ETH 1	10.1.2.1	NIC 2
ETH 2	10.1.3.2 WiFi	NIC 3	3	ETH 2	10.1.3.1 WiFi	NIC 3
ETH 3	10.1.4.2	NIC 4	4	ETH 3	10.1.4.1	NIC 4

- d. Enter a permanent Static IP address for the TC NIC (refer to Table 1-1) into the IP Address field.
- e. Enter 255.255.255.0 for the Subnet mask.
- f. Click *Next* to return to the Network Settings window.
- g. If prompted click *Yes* at the blank hostname question.
15. Repeat step 14 for each NIC as needed. Note: If the SUT has more NICs then the TC, configure the virtual IP addresses (aliases) on the TC (up to 3 alias IP addresses per NIC port spaced evenly across NIC cards). If the SUT has a wireless NIC and TC has only 2 NIC's then alias the TC wireless NIC IP address (10.1.3.2) to 10.1.2.2 on the TC. Refer to the Troubleshooting section in this document for detailed information on setting up the alias IP Addresses.
16. Click *Next* in the Network Settings window.



17. Click the *Skip Registration* radio button on the Registration screen.
 - a. Click *OK* in the Skipping Registration warning message prompt.
 - b. Click *Next*.
18. On the Available Extensions and Modules screen select the following:
 - ✓ Basesystem Module
 - ✓ Desktop Application Module
 - ✓ Development Tools Module
 - ✓ Server Application Module
 - ✓ SUSE Linux Enterprise Workstation Extensions 15 SP5 (this is for the hard drive and thumb drive, etc. ntfs accessibility).
 - a. Click *Next*.
19. If prompted, click *Next* in the Add On Product Installation screen.
20. Click on *SLES with Gnome* on the System Role screen then click *Next*.
21. Click *Next* at the Suggested Partitioning screen.
22. Adjust the region and time zone to match your region and time zone.
 - a. Click your region in the *Region* pull down menu on the left side or click on your time zone in the map.
 - b. Click your time zone in the *Time Zone* pull down menu on the right side or click on your time zone in the map.
23. Set the system clock. We require that the system clock be set to match the time of the other systems in the test harness (TC and SUT). Having logs with accurate time stamps set to the same time will greatly help troubleshooting.
 - a. Click the *Other Settings* button.
 - b. Change the Current time and Current date to be accurate.
 - c. Click the *Accept* button.
24. Click the *Next* button to complete the setup of the Clock and Time Zone screen.
25. Configure the Local User.
 - a. Click the *Skip User Creation* radio button.
 - b. Click *Next* in the Local User screen.



26. Set the password for the System Administrator root.
 - a. Type a password (E.g., suse) into both fields for the root user password.
 - b. Click *Next*.
 - c. Click *Yes* to the Really use the password at the password is too simple prompt.
27. Disable the firewall by clicking on *disable* next to firewall will be enabled. The display will change to firewall will be disabled.
28. If listed as disabled, enable the SSH service by clicking on *enable* next to SSH service will be disabled. The display will change to SSH service will be enabled.
29. If listed, enable an SSH port by clicking on *open* next to SSH port will be blocked. The display will change to SSH port will be open.
30. Click *Install* to start the installation.
31. Click *Install* in the popup window to confirm the installation.
32. After the installation is complete, leave the existing SLES 15 SP5 bootable USB thumb drive in the TC.
33. Reboot the TC then go to [Section 1.2 "Installing the Test Kit on TC"](#).

1.2 Installing the Test Kit on TC

This section will walk through installing the test kit onto the TC system.

Estimated time to completion: 20 minutes. 5 of the 20 minutes is a wait time in the middle of the install.

1. Log into the TC as root.
 - a. On the password screen click on the gear/cog button on the bottom right.
 - b. Click on GNOME Classic.
 - c. Type in the root password, then press <Enter>. Use the password (i.e, suse) created during the TC OS installation.
2. Ensure that the SLES 15 SP5 bootable USB thumb drive is in the system.
3. Open a terminal window by clicking on the top left Application -> Utilities -> Terminal.
 - a. In the terminal window type `yast2 repositories` <Enter>.



- b. In the Configured Software Repositories screen click on a software Repository entry (Example SLES15-SP5-15.5-0).
 - c. Click on the Enabled checkbox in the bottom left side of the Configured Software Repositories screen. A checkmark will appear next to the software repository under the enable category.
 - d. Repeat steps b and c for each Software Repository entry listed until each Software Repository is enabled.
 - e. Click the OK button in the bottom right side of the Configured Software Repositories screen.
 4. Copy the SLES 15 SP5 ISO image onto the TC.
 5. Download the latest SUSE Yes Certification Test Kit iso file onto your personal workstation.
 6. Transfer the SUSE Yes Certification Test Kit iso file onto a USB storage device.
 7. Copy the SUSE Yes Certification Test Kit iso file onto the TC desktop from the USB storage device.
 8. Safely Remove the USB storage device which contains the SUSE Yes Certification Test Kit from the TC.
 9. Create a directory which will be used for a SUSE Yes Certification test kit mount point (example: /root/Desktop/sck/).
 10. Open a terminal window by clicking on the top left Application -> Utilities -> Terminal.
 - a. In the terminal window type: `cd /root/Desktop <Enter>`.
 - b. In the terminal window type: `md sck <Enter>`.
 11. Mount the test kit ISO image on the TC by typing the following in a terminal window: `mount /<Path>/<Test kit file name.iso> /root/Desktop/sck/ <Enter>`.
-
- Example:** `mount /root/Desktop/suse-systest-8.8-GM.iso /root/Desktop/sck/ <Enter>`
-
12. Start the test kit install by typing the following in a terminal window: `/root/Desktop/sck/sck_install.sh <Enter>`.



13. Type in the first IP Address of the TC.
14. Choose **3** to install the Test Kit for TC, then press <Enter>.
15. When prompted type the TC's IP address (default IP address = 10.1.1.2), then press <Enter>.
16. If prompted type in the password for the TC (E.g., suse), then press <Enter>.
17. When prompted type yes <Enter> to continue connecting.
18. Type in the TC root password when prompted.
19. Type the password suse <Enter> at the New SMB password (Samba) prompt.

Note: No characters or asterisks will be displayed when typing the Samba password.

20. Type the New SMB password, suse, again then press <Enter>.

Note: The default username is set to root by the Test Kit. If the password is not typed the same during each SMB password entry the message: "Error smbconfig.sh" may be displayed.

21. It is recommended that you answer Y <Enter> to the TC DHCP and PXE server question. Otherwise, we cannot support your SLE installation server. There is information in the troubleshooting documentation for setting up a SLE 15 SP1 installation server.
22. Select the NIC with the IP address 10.1.1.2 for the DHCP configuration then press <Enter>. The NIC must be on an isolated network.
23. Confirm the NIC which you have selected by answering the "use ethx, is this correct?" question by typing Y <Enter>.
24. To change the DHCP Address range follow the steps below, otherwise type: N <enter> at the prompt.
 - a. At the prompt: "Do you want to change the DHCP available address range?" type: Y <enter>.
 - b. Complete the beginning IP address for the new range then press enter.
 - c. Complete the ending IP address for the new range then press enter. A message will be displayed in the terminal window stating that the DHCP server is restarting.



25. Type q <Enter> in response to the question “Would you like to add or remove ISO's” to the PXE boot install menu question. This will be configured later.
26. When prompted, press <Enter> to exit the Test Kit install script. If the IP address of the TC is changed after this point, then the Test Kit must be re-installed.
27. Safely remove the SLES 15 SP5 bootable USB thumb drive.
28. Continue to [Section 2](#).

2 Setting Up PXE Menu on TC

Starting with System Test Kit 7 the TestConsole (TC) system can function as a DHCP and PXE install server. The basic DHCP and PXE functionality is enabled during the TC system Test Kit installation. Once you have downloaded the OS ISO images, they need to be copied onto the TC. If you will be copying the OS ISO images from a windows desktop then format the USB device to NTFS so that it can read by both windows and Linux. The estimated time to copy the OS from the USB device to the TC is 8 minutes per OS. The time needed to download the OS from the SUSE website depends on your internet speed.

2.1 Copy SLE ISO images to TC

1. Download the desired SLE ISO image(s) from <https://download.suse.com/index.jsp>
2. Alternately, you can create the ISO image directly from an installation DVD using the dd command.

Example: dd if=/dev/sr0 of=./SLES-12-SP5-x86_64.iso bs=4k <Enter>.

3. If you need to use a KISO then see the section entitled Adding KISO to PXE Menu in the back of this document.
4. Transfer the downloaded SLE ISO file(s) to a storage device.



Note: If transfers are made from a windows system to a SLES system then the storage device will need to be formatted as an NTFS file system to accommodate large OS ISO file sizes.

5. Create a folder on TC where you will keep the SLE ISO images. The folder name must not have any spaces in the name.
6. Copy the SLE ISO images into this folder on the TC.
7. After copying the files, unmount and remove the USB Storage device which the ISO images were copied from.
8. Continue to Section 2.2 “Add SLE ISO images to PXE menu on TC”.

2.2 Add SLE ISO Images to PXE Menu on TC

This section will populate the PXE menu OS's to choose from in the PXE menu for a PXE boot OS installation. The estimated time to completion is 3 minutes.

1. On the TC open a terminal, then type:
`/opt/suse/testKits/system/bin/configinstserver.sh <Enter>`.
2. Type Y <Enter> when prompted with the question “would you like to add or remove ISO's?”.
3. Type A <Enter> to add an image. The configinstserver.sh script will search for and display all ISO images on the system.

Note: This PXE server configuration is set up for SLE products only. Do not add ISO images for operating systems other than SLE products, even though the search will find other ISO's.

4. Enter the number of the ISO image to be added.
5. Repeat steps 3 & 4 for each additional SLE ISO image to be added to the PXE install menu, then press <Enter>.

Note: Up to 8 ISO images can be added to the TC PXE server.



6. Type Q <Enter> to exit the configinstserver.sh program.
7. Unmount SCK ISO.
8. Continue to [Section 3](#).

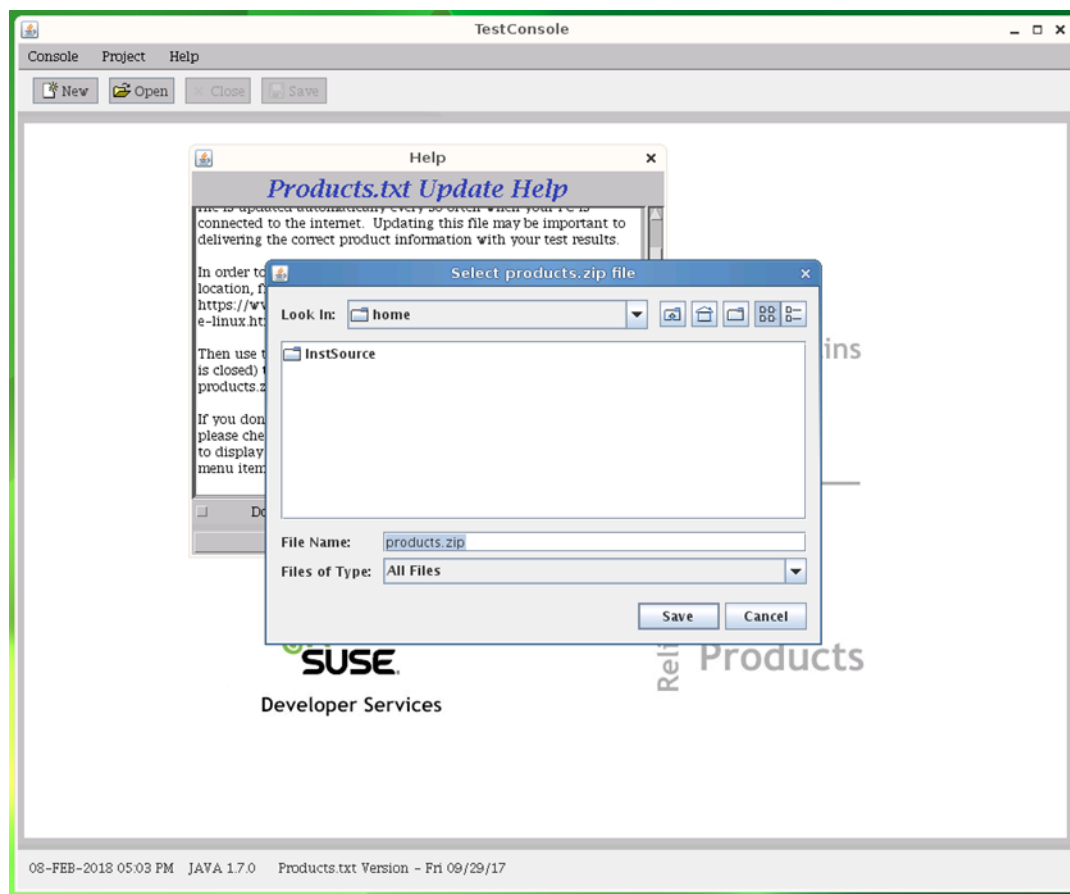
3 Update Products.txt and Verify TCLINK

3.1 Update Products.txt File

The products.txt file updates the TC with the latest hardware components available from the SBS database. This makes them available for selection when entering the SUT system information. The estimated time to complete the manual products.txt update is 5 minutes.

1. Download the latest products.zip from the YES System Test Tools for SUSE Linux webpage at:
<https://www.suse.com/partners/ihv/yes/system-test-tools-for-suse-linux.html>
2. Copy the products.zip file to a USB storage device.
3. On TC, open TestConsole by clicking on the top left Applications-> Programming-> **TestConsole** icon. The icon may appear as the icon on the left below until after the first launch of TestConsole.
4. If prompted click Trust and Launch.
5. Insert the USB storage device containing the latest products.zip file into the TC system.
6. The Select products.txt zip file window should appear in TestConsole. If the Select products.txt zip file window and the Products.txt Update Help window is not displayed, then click Console > Update Products.txt from the menu bar.





7. In the Select Products.zip file window click the down arrow (↓) next to Look in: .
8. Select the / character.
9. Double-click on run.
10. Double-click on media.
11. If root is listed, then double-click on root.
12. Double-click on the removable storage device containing the products.zip file.
13. Click on the Products.zip file.
14. Click Save.
15. Click OK at the Products.txt Update Help window.
16. Close Test Console by clicking on the "x" in the upper right corner.
17. Click Yes to really quit.
18. Unmount and remove the removable storage device.



19. Open Test Console by clicking the Test Console icon located on the TC desktop.

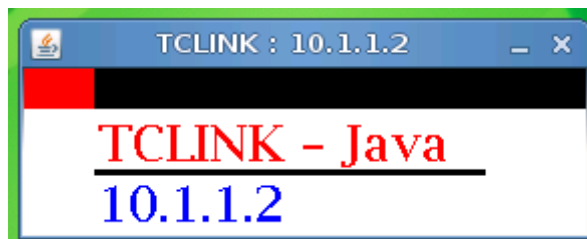
The product.txt update is now complete. Ensure that the Test Console screen is in full screen mode so that the date and time information for the products.txt file will be displayed in the bottom of the Test Console window.

Notes: The Products.txt file can also be updated directly via an Internet connection from the TC. We recommend the Products.txt file be updated on a regular basis before testing begins.

20. Continue to [Section 3.2 “Verify TCLINK IP Address”](#).

3.2 Verify TCLINK IP Address

1. Verify that the **TCLINK** window displays the IP address of the first network adapter on TC (ex. 10.1.1.2). The small TCLINK window may be hidden behind the TestConsole screen.



2. If the IP address does not match the primary TC network adapter, perform the following steps:
 - a. Open a terminal window.
 - b. In the terminal window type: `gedit /etc/hosts` <Enter>.
 - c. Edit the IP address next to TC or TC.suse TC to match the IP address of the primary TC network adapter (example: 10.1.1.2 TC or 10.1.1.2 TC.suse TC).
 - d. Click on the save button in the top right side.



- e. Close gedit by clicking on the x button located at the top right.
 - f. Close TestConsole.
 - g. Open Test Console by clicking the Test Console icon located on the TC desktop.
 - h. The correct IP address should now be shown in TCLINK.
3. Proceed to the next Test kit document for the OS installation and testing. This will be the document for the OS which you plan to install and test. An example would be the SLES document or the SLED document. Some of the document's names are Server_Extended_SCK_...-<date> and Workstation_and_Laptop_...-<date>. Keep in mind that SLES will need to be installed before the KVM or XEN can be installed. If you are planning to install and test XEN or KVM and have a windows guest, then go to section 4.

4 Set up TC for Windows VM Testing

If you will be testing KVM or XEN with a Window guest then the SUSE Virtual Machine Driver Pack(VMDP) will be needed. The SUSE VMDP information webpage is <https://www.suse.com/products/vmdriverpack/> . The download site for the SUSE VMDP is <https://www.suse.com/download/suse-vmdp/> . To install and configure the VMDP perform the following steps:

1. Open a Terminal.
2. Type "cd /opt/suse/testKits" <Enter>.
3. Place the Virtual Machine Driver Pack (VMDP-WIN-*.*.exe) file in the /testKits folder. A real example filename is VMDP-WIN-2.5.3.exe.

Note: Log into your SUSE Customer Center (SCC) account to access and download the Virtual Machine Driver Pack (VMDP). If the latest VMDP is not available, or you encounter issues then contact your SUSE Partner Engineering representative.

4. Create a separate folder with a unique name (ex. Win-ISO).
5. Place any Windows ISO files there.
6. Place a Windows laptop or PC on the same network as TC. TC is set up as a DHCP server and should serve an appropriate IP address.
7. Click the File icon on the bottom left of the Windows PC.



8. Right-click **Network**, then choose **Map Network Drive**.
9. Select Drive **T:** from the dropdown window.
10. Type “\\10.1.1.2\\windir\\”
11. Click **Finish**.
12. Enter the TC username (root) and password (suse) and click **OK**.
13. Double-click to open the **testKits** folder.
14. Double-click VMDP-WIN-*.*.exe (e.g. **VMDP-WIN-2.5.3.exe**)
15. The directory created by the self-extracting executable is VMDP-WIN-#.#.#/ (e.g. VMDP-WIN-2.5.3/).

Note: This will create a VMDP-Win directory in the test Kits folder that contains the VM Driver Pack installation files used in testing.

16. Proceed to the next Test kit document for the OS installation. This will be the document for the OS which you plan to install and test. An example would be the SLES document or the SLED document. Keep in mind that SLES will need to be installed before the KVM or XEN can be installed.

5 Dealing with Unused NIC ports on the TC

If you have a NIC port on the TC which is not being used on the test network/s but the NIC port has an IP Address, then the IP Address will need to be added to the “do not test” file.

To add the NIC Port IP Address to the do not test file, do the following:

```
echo <IP_Address> >> /opt/suse/testKits/system/configs/do_not_test
```

Example: `echo 137.65.80.10 >> /opt/suse/testKits/system/configs/do_not_test`



6 Using TestConsole

The TestConsole main window displays three distinct panes: Project Contents, Run Queue, and Project Log. You may display these panes in tiled or tabbed formats. You can change the display in the View menu. We recommend the tabbed view if your monitor has a lower than 1024x768 resolution. Each open test project is displayed on its own tab and can be quickly accessed by clicking on the tab with the test project name.

6.1 Project Contents

The Project Contents pane uses an expanding tree format to display the tests associated with the project you have chosen. For example, to expand or collapse a group of tests, click the plus or minus icons next to the test. There are three columns in the Project Contents pane. The first column displays the title of the test. The second column indicates whether the test is selected to be run with a test group (blank box = unselected, check mark in box = selected). The third column indicates the final test result (untested, pass, fail, etc.). The Project Contents pane may also display a Station Address icon (computer icon) to enable you to select your test station.

6.2 Starting Tests

1. Double-click any item in the Project Contents pane and the test will start.
2. Right-click any item in the Project Contents pane and choose an item from the popup menu to view properties.
3. TestConsole saves project files once a test has stopped. This includes product information and test results.

Note: To select or de-select a test, click the boxes in the second column. A check mark in the column indicates you have selected the test.



6.3 Run Queue

The Run Queue pane displays the tests that are currently running or queued to start. It displays the test name, the status and the IP address of the test station. The Cancel Test button enables you to cancel the highlighted test that is in the Run Queue. The Cancel All button cancels all tests that are queued to run. The Remove Test button allows you to remove a test, even if it is hung.

Note: When a test is running, the word “running” appears in the status column. If the station under test loses its connection the status column will show two computers disconnected.

6.4 Project Log

The Project Log pane displays a running log of the tests in your test project. It records the time each test started and finished, the result of the test, and other pertinent information. To display additional information about the test, errors, warnings, and failures in the Project Log pane, run the test in debug mode.

6.5 TestConsole Testing Modes

TestConsole can be run in additional testing modes which are not typically used during the certification testing. This section (C.5) will provide information for the different modes.

6.6 Debug Mode

Debug Mode displays additional information about errors and failures encountered while running the test. This information is displayed in the Event Log pane of the TestConsole window. Not all test modules support the logging of debug information. To enable debug mode, click the Debug check box in the Event Log control bar. Debug mode runs slower than the normal test mode and can quickly fill up the event log. By default, the log is limited to 10,000 entries. When it exceeds 10,000, the entries at the

beginning of the log are lost.

6.7 Loop Mode

Loop mode allows you to set up a list of tests or test groups in any order and to run the tests for a multiple number of times in a loop. You can specify loop counts for individual tests as well as groups of tests.

Editing the Loop Test List

To create or edit the Loop Test List, from the menu bar select *Loop > Edit Loop List*. This will display a dialog box with two panels. The left panel displays the available Project Contents. The right panel displays the Loop Test List.

In the Project Contents panel, select the test or group that you want to add to the Loop Test List and click *Add*. The selected items will be added to the loop list. You can continue to add items in any order.

To delete a test or group, select the item in the Loop Test List panel and click *Remove*. To rearrange the order of the tests within a group, right-click the item in the Loop Test List panel and select *Move Up* or *Move Down* from the popup menu.

To edit the loop count for individual tests or test groups, either double-click the Loop Count column next to the test title or right-click the test title and select *Loop Count*. This displays a dialog that allows you to edit the loop count properties. The Loop Test List will be saved until the project is closed. You can close the Loop dialog at any time.

Starting the Loop Test List

If the Loop List dialog window is open, click *Run List*.

If the Loop List dialog window is closed, from the menu bar click *Loop > Run Loop List*.

Note: Currently, loop mode restricts the number of test instances that can be placed on the Run Queue to 100 maximum. For example, if you have 2 tests in a group that run 25 times each with the group itself running 2 times, then you have reached your maximum.

Choose tests to run

Choose the test to be enabled.

Double-click *Enable . . . Testing* to enable the test.

6.8 Importing Product Information from an Existing Project

You may import product information from an old project into a new project. TestConsole will only import the product information. TestConsole will not import test results. Importing product information will delete all test results of the current project. Import product information before you perform any tests.

1. Start TestConsole.
 - a. Turn on the TC and log in as root.
 - b. Double-click the TestConsole icon on the desktop.
2. Open the Project.
 - a. Click Project > Open Test Project > New.
 - b. Select (Server or Client) – Full or (Server or Client) – Reduced and click Select.
 - c. Click Yes at the Warning! window to enter the SUT product information now.
3. Import the project.
 - a. Click File > Import Product File.
 - b. Click Yes at the Warning! Window.
 - c. Browse for the project file to be imported in the /opt/suse/testKits/System/status directory (e.g., YourFile.TSF).
 - d. Remove all drivers and adapters listed in the video, LAN, and HBA tabs.
 - e. Click OK in the Product & Report Information window.
4. Save the project.
 - a. Click Project > Save Test Project As.
 - b. Replace the project name with a unique name (e.g., P2System).
 - c. Click Save.

Note: TestConsole will import all of the product information into the current project, and it will reset all test results. Remember to change all pertinent information before starting any tests.



- d. Make any necessary changes in the product information.
- e. Click OK.



7 Troubleshooting

7.1 TC Connection

You can test the connection to tclink by starting the tclink with the debug argument (tclink debug). Then you can telnet from any system to that tclink (e.g., telnet 10.1.1.1 7078). If there is a live connection, the linux tclink should display some information on the screen as a result of the telnet. On linux, tclink communicates via the 7078 port. On Java, tclink communicates via port 7076 but doesn't print anything.

7.2 TestConsole Locks UP/Blank Screen during Testing

If TestConsole locks up or has a blank screen during testing, the following is advised:

1. TestConsole may be busy. Wait 10 minutes for the TestConsole window to be redrawn.
2. Click on the TC Terminal window. Then click on the TestConsole window.
3. Check for message screens hidden behind other screens. A message screen may be hidden and be waiting to have the OK button clicked on before the TestConsole screen will be displayed correctly.

7.3 TestConsole displays Error Attempting to Run Test

If "Error attempting to run test" appears on the TestConsole log screen, check `/var/opt/suse/TestKits/` for log files. If you deleted the icon on the desktop for TestConsole; you probably cannot get the icon to reappear on the desktop by reinstalling the Test Kit. The way to get the desktop icon back is to remove the `/root/.skel/tc.icon` file, log out and log back into TestConsole.



7.4 Error Messages

Error messages will occur for a variety of reasons (e.g., incomplete required information or test results). Error messages indicate problems with required tests or product information. All required tests must be completed or have a valid exception approved by SUSE in order to receive a bulletin. TestConsole will produce an error message for each required test that does not pass or have test results. These tests must be completed (or have a valid exception) in order to receive a bulletin. TestConsole will also generate an error message for each required empty field in the Product and Reporting Information screen forms. Each required field must be completely filled in to receive a bulletin.

Note: Any changes to fields in the System tab (except the Product Description field) will reset all test results for the product. Contact a SUSE Engineer if changes must be made to these fields.

7.5 Warning Messages

Warning messages also occur for a variety of reasons (e.g., incomplete optional information or test results). TestConsole will generate a warning message for each optional test that does not have test results.

If you receive a Error message that TC cannot ping 10.1.1.2, make sure that TC is on an isolated switch and on an isolated network.

7.6 Manual Test Kit Uninstall

The Test Kit may also be uninstalled from TC by following the steps below.

1. Open a terminal.



2. Type `rpm -e sck-tc` <Enter>.
3. Type `rpm -e tconsole` <Enter>.
4. Type `rpm -e tclink` <Enter>.
5. Type `rpm -e sck-common` <Enter>.
6. All remaining files will also need to be removed by doing the following:
 - a. At the shell prompt, type `rm -r /var/opt/suse/testKits`
 - b. At the shell prompt, type `rm -r /opt/suse/testKits`



8 Setting Up NIC Aliases

1. If the SUT has 5 or more NICs and the TC does not have enough NIC ports the example in the table below can be used as an example to set up and configure virtual IP addresses (aliases) on the TC.
 - a. Based on the IP addresses in the Table below choose the appropriate IP address to configure.
 - b. On TC, open a terminal.
 - c. In the terminal type `yast2 lan` <Enter>.
 - d. Click on the appropriate NIC.
 - e. Click on Edit.
 - f. Click on Add.
 - g. Type your own label name into the IPv4 Address Label name field. Example names are `IPAlias` or `WiFiAlias`. No spaces are allowed in the IPv4 Address Label name.
 - h. Using the table below enter the alias IP Address into IP Address Field.

Note: If you are using different IP addresses than those listed below, write in the actual IP address used in the IP address column.

TC Alias Name	eth number		IP Address	Notes
TC5	eth0	10.1.5.2	Alias on NIC 1	If the SUT has 5 NICs
TC6	eth1	10.1.6.2	Alias on NIC 2	If the SUT has 6 NICs
TC7	eth2	10.1.7.2	Alias on NIC 3	If the SUT has 7 NICs
TC8	eth3	10.1.8.2	Alias on NIC 4	If the SUT has 8 NICs
TC9	eth0	10.1.9.2	Alias on NIC 1	If the SUT has 9 NICs
TC10	eth1	10.1.10.2	Alias on NIC 2	If the SUT has 10 NICs
TC11	eth2	10.1.11.2	Alias on NIC 3	If the SUT has 11 NICs
TC12	eth3	10.1.12.2	Alias on NIC 4	If the SUT has 12 NICs
TC13	eth0	10.1.13.2	Alias on NIC 1	If the SUT has 13 NICs
TC14	eth1	10.1.14.2	Alias on NIC 2	If the SUT has 14 NICs
TC15	eth2	10.1.15.2	Alias on NIC 3	If the SUT has 15 NICs
TC16	eth3	10.1.16.2	Alias on NIC 4	If the SUT has 16 NICs

- i. Enter 255.255.255.0 for the Netmask.



- j. Click *OK*.
 - k. Repeat d - g for each additional virtual IP address (Alias) needed for this TC NIC.
 - l. Click *Next* in the Network card setup window.
 - m. Click Yes for the blank hostname question.
2. Repeat 1a-1m for each additional virtual IP address needed for this TC NIC.



9 Adding KISO to PXE Menu

You can only install a KISO file using the Manual PXE option.

9.1 Adding a SLE 12 KISO

1. Rename the KISO image (prior to adding the ISO) using the following convention:

<OS_Ven>-<OS_Ver>-<SP>-<Media_Type>-<Arch>-<Build>-<Media#>-<Custom>.iso

OS_Ven = OS Vendor: **Use default value:** SLE

OS_Ver = OS Version: **Use default value:** 12

SP = Service Pack: **Use default value:** SP5

Media_Type = **Must Use:** KISO

Arch = Architecture: **Use default value:** x86_64, aarch64, ppc64le, or s390x

Build = **Use default value:** GM, GMC, BETA1, etc

Media# = **Use default value:** Media1

Custom = **Custom Information (optional):** Any string to uniquely identify the iso.

Note: This custom information can also be used to match the KISO with a custom autoyast file.

Examples:

Original Installation ISO for SLE 12 SP5 for x86_64:

SLE-12-SP5-Server-x86_64-GM-Media1.iso

Sample KISO for SLE 12 SP5 for x86_64:

SLE-12-SP5-KISO-x86_64-GM-Media1-<optional_custom_info>.iso

2. If a KISO file is found on TC during PXE Menu setup (configinstserver.sh) the following prompt displays:
Do you want to add the KISO (SLE-12-SP5-KISO-x86_64-GM-Media1-<custom_info>.iso) to the PXE boot (N/y)?
a. Answer "y" (yes) to add the KISO file to the PXE Menu.

Note: This will cause the installation to use the KISO during the install of any SLE 12 x86_64 system.



- b. Answer "n" (no) to ignore the KISO file and use the original installation ISO.
3. To remove a KISO file from the PXE Menu, perform the following steps:
 - a. Remove the SLE 12 x86_64 installation ISO from the PXE boot list (using `configinstserver.sh`)
 - b. Re-add the SLE 12 x86_64 installation ISO answering "N" (No) when prompted to add the KISO.

9.2 Adding a SLE 15 KISO

1. Rename the KISO image (prior to adding the ISO) using the following convention:
`<OS_Ven>-<OS_Ver>-<SP>-<Media_Type>-<Arch>-<Build>-<Media#>-<Custom>.iso`
 OS_Ven = OS Vendor: **Use default value:** SLE
 OS_Ver = OS Version: **Use default value:** 15
 SP = Service Pack: **Use default value:** SP2 or SP3
 Media_Type = **Use Default value: Installer-DVD**
 Arch = Architecture: **Use default value:** x86_64, aarch64, ppc64le, or s390x
 Build = **Use default value:** GM, GMC, BETA1, etc
 Media# = **Use default value:** DVD1
 Custom = **Custom Information (optional):** Any string to uniquely identify the iso.

Note: This custom information can also be used to match the KISO with a custom autoyast file.

Examples:

Original Installation ISO for SLE 15 SP5 for x86_64:

SLE-15-SP5-Full-x86_64-GM-Media1.iso

Sample KISO for SLE 15 SP5 for x86_64:

SLE-15-SP5-Media1-x86_64-GM-DVD1-**<optional_custom_info>**.iso

2. If an additional SLE 15 KISO file is found on TC during PXE Menu setup (`configinstserver.sh`) the following prompt displays:
 Do you want to add the KISO (SLE-15-SP5-KISO-x86_64-GM-Media1-
`<custom_info>.iso`) to the PXE boot (N/y)?
 - a. Answer "n" (no) to ignore the additional KISO file and use the renamed KISO file.



Note: This step will cause the installation to use the KISO during the install of any SLE 15 x86_64 system.

3. To remove a KISO file from the PXE Menu, perform the following steps:
 - a. Remove the SLE 15 x86_64 installation ISO from the PXE boot list (using `configinstserver.sh`)
 - b. Re-add the SLE 15 x86_64 installation ISO answering "N" (No) when prompted to add the KISO.



10 Revision History

Date	Description
April 2024	Removed the Desktop Icon pictures from section 3.1.
January 2024	Updated to install and use SLES 15 SP5 on TC for the 9.0 test kit.
January 2023	Updated to install and use SLES 15 SP4 on TC for the 8.8 test kit. Updated the Utah address.
June 2022	Changed page size to 8.5 x 11.
May 2022	Added the Kiso Manual install Note.
April 2022	Updated some VM DP information in section 4.
February 2022	Ported to new SUSE Branding.
March 2021	Updated for the 8.6 test kit.
November 2020	Updated to New SUSE Corporate Branding.
May 2020	Updated the fonts to Work Sans.
January 2020	Updated copyright to 2020. Added the KISO section.
July 2019	Updated for the 8.4 test kit.
March 2019	Added estimated completion times for some sections of this doc.
February 2019	Updated for TC to become SLES 12 SP4 for the 8.3 test kit.
November 2018	Added minimum hardware requirements section to the beginning.
October 2018	Moved section 8 to become section 5.
September 2018	Updated for SLES 12 SP4 and for the 8.2 test kit.
July 2018	First release of this document.



