

SUSE YES System Certification Kit 9.0

SUSE Linux Enterprise – Server Quick
Guide



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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/>

Partner Resources <https://www.suse.com/partners/become-partner/>

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1 SLES Configuration

This document is intended for experienced testers who have previously performed Yes Certification testing. The steps in this document are an overview. If you need detailed instructions, please see the extended document. Use this test suite to certify systems with SLES 12 and 15 (latest support pack for each OS).

1.1 Configuring the Hardware

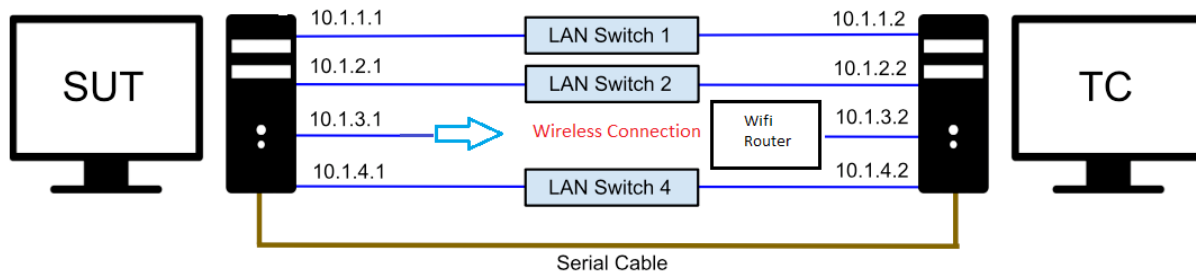
Minimum Requirements for System Under Test (SUT)

- ✓ Minimum SLES hardware requirements must be met on the SUT hardware. See the SLES online documentation for SLES hardware requirements.
- ✓ Direct access to the system under test (SUT). Do not use remote access, do not use SSH.
- ✓ Null modem serial cable (for systems with serial ports).
- ✓ As this document is intended for experienced testers as mentioned above please refer to the Server Extended document for more complete details.



1.2 Test Configuration for SLES Testing

Figure 1-1 Configuration for the tests with one card with 3 Ethernet ports and 1 Wifi adapter.



Notes: When assigning IP addresses to the NICs, do not use the range 192.168.101.0 thru 192.168.101.255. These IP addresses are used in the Serial Port test.

1.3 Installing SLE on SUT through PXE

We recommend UEFI OS boot be enabled on the SUT if supported. This will permit UEFI to be listed in the BIOS/UEFI field, otherwise BIOS must be listed. PXE boot install is supported with a UEFI enabled SUT. Attach all SUT NICs to TC through a hub or switch. Make sure each NIC (up to 4) is on an isolated network.

Notes: Up to 16 NIC ports on SUT can be tested. If the SUT has more than 4 NICs, virtual Ethernet adapters must be configured on TC, utilizing the existing 4 switches.

1. Delete all existing partitions from all hard drives. Section “1.1 Removing the ELIO Boot Tables” in the Troubleshooting and Help Document has instructions which will delete any and all existing partitions.
2. Remove all external devices (USB, eSATA, Firewire, etc.) from the SUT.
3. Boot the SUT and enter the BIOS/UEFI configuration.
4. Ensure network boot (PXE) is enabled in the BIOS/UEFI. If needed, press the appropriate key to enter the BIOS/UEFI and select PXE boot during post. Exit out of the BIOS saving any changes which were needed.
5. PXE boot the SUT. The PXE server has to be the TC.
6. The SUSE SCK Install Main Menu will be displayed on SUT. Use the arrow keys (or the tab keys on some systems) to select the OS to install, then press <Enter>.

Notes: If the SUT does not display a “SUSE SCK Menu” option, then the SUT is not connected to the TC system or the SUT may not support PXE boot. Check the LAN cables for correct wiring to the secluded/isolated network. Repeat the steps 1 through 4 to address this problem.

7. The SCK OS specific Install screen will be displayed. Use the arrow keys (or the tab keys on some systems) to select the OS install option which best meets your needs, then press <Enter>. There is a short delay after pressing enter then SUT will display the SLE GUI installation screen and the OS installation will begin. Each option is briefly explained below.
 - a. Single (hard) disk automated install – This option is appropriate for most servers which have a single hard disk drive or a RAID configuration which appears as a single hard drive. All OS installation settings are completed for the user and are automatically installed onto the SUT.
 - b. Multiple (hard) disk automated install – This is the same as single-disk install except the user will be provided with the ability to configure disk partitions and specify the OS installation location.
 - c. Manual install – The manual OS installation is like a DVD install. The user inputs all settings for each configuration screen during the OS install.
8. If an automated install (single/multiple disk or No GUI Headless) was selected, then wait for the installation to complete. Once the OS installation has completed then proceed to Section 2.0, “Creating a New Test Project”.



Notes: There may be a short delay after pressing <Enter>. After the delay, the SUT will display the SLE GUI Installation screen and begin the OS installation automatically.

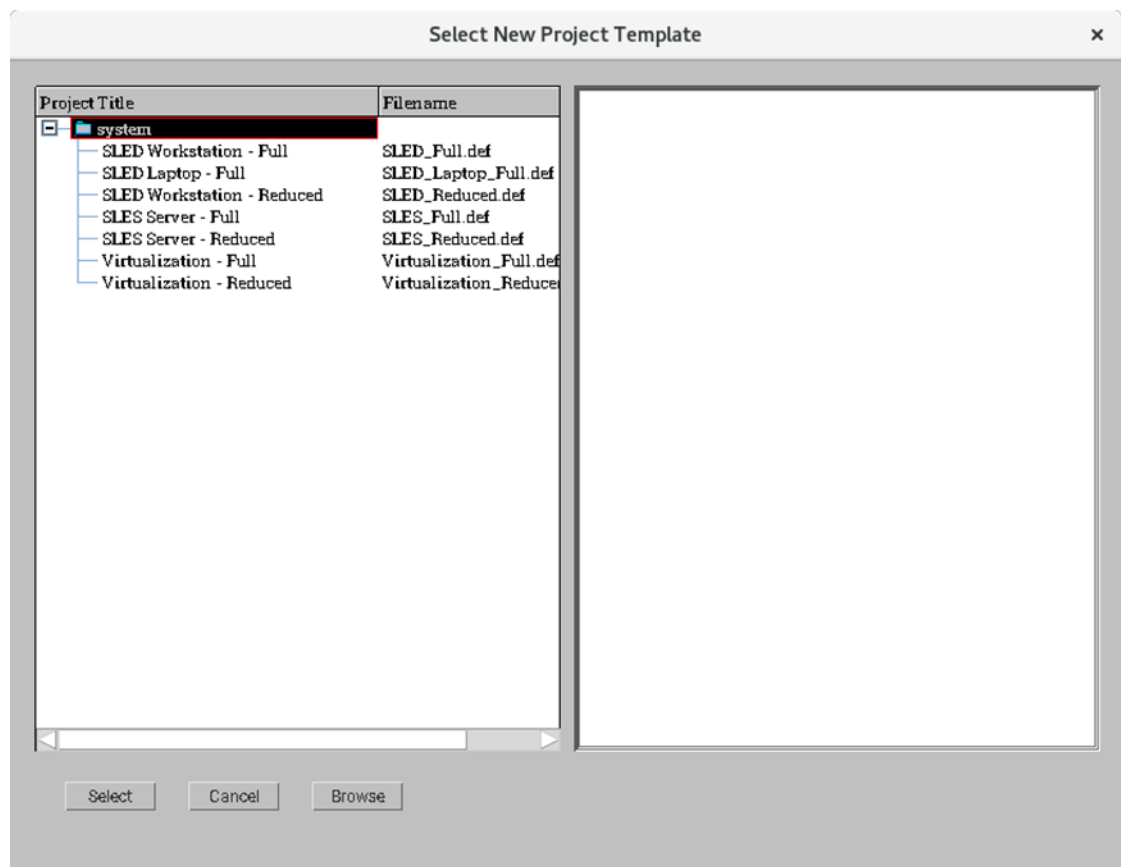
9. If a manual install was selected and you need instructions then see the Extended Server documentation Section 4, "Manually Installing SLES" then use the installation instructions for the OS which you chose to install.



2 SLES Certification

2.1 Creating a New Test Project

1. Ensure that you have updated the products.txt file as instructed in the TestConsole documentation. Direct Access to the TC, and SUT systems are required, do not use remote access, do not use SSH).

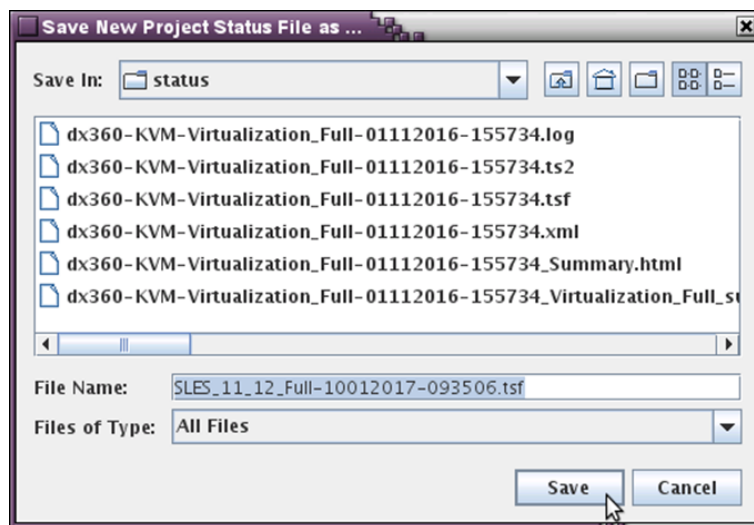


2. Click the New button on the menu bar.
3. Click on the appropriate project (listed below) then click the select button.
 - Server - Full
 - Server - Reduced (See the Reduced Testing Policies located at https://www.suse.com/partners/ihv/pdf/System_Certification_Policies.pdf Website to determine eligibility to use this test project).
4. A default unique project file-name will be generated. The unique project file-name contains a date-stamp and time-stamp. You may choose a different unique project



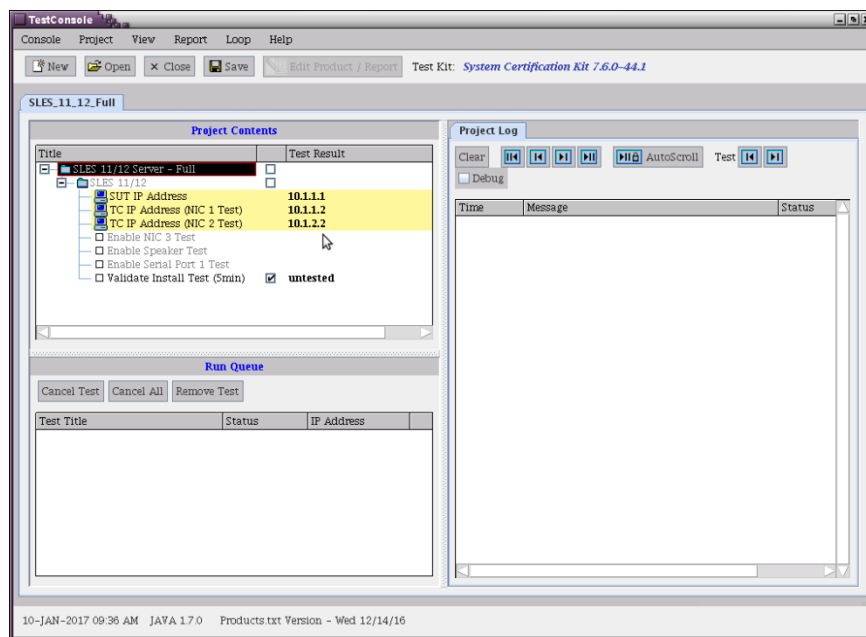
file-name limited to 58 characters by typing a file-name into the project file name field. Do not use more than 58 characters in the file name. Click on Save to save the project. If you change the project name please use a unique project file-name which has not been used previously.

Notes: Do not put spaces or html control characters in the file name.



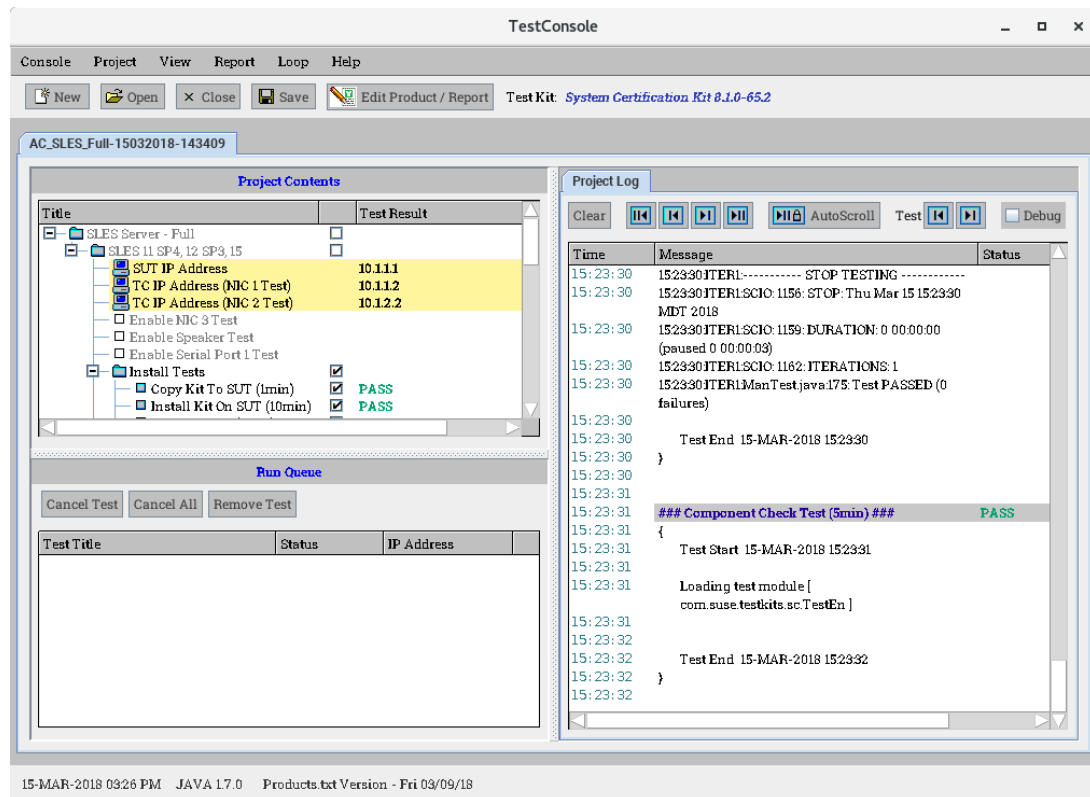
5. If needed Modify SUT and or TC IP Address to match actual addressing scheme. Use defaults if possible.





6. On the SUT open a terminal then type `yast2 lan <Enter>`. Click on the Hostname/DNS tab in the YaST2-Network Settings window. Edit the host name to be SUT. Configure all IP address to be statically assigned. Click on the OK button. Exit and reboot the SUT.
7. The IP Address for the SUT will not be auto-detectable until after the test kit is installed onto the SUT. All Ethernet ports must be enabled and tested. If you have a wireless card in the server, it should be configured to be on the 10.1.3.x network by default.





8. Run the Install Test's (Install Kit on the SUT, Install Check test, Enable Component Check). Follow all onscreen prompts.
9. Run the **Component Check Test**.
10. After Component check is run, the **Edit Product/Report** button becomes available. Click the **Edit Product/Report** button and enter **Company**, **System**, Video, LAN, HBA and Device information in the appropriate tabs.

Product & Report Information - SLES 11/12 Server - Full (x3650_M5_SLES_11_12_Full-24102016-1)

File Report

View / Print Verify Import Report ? Ok

Company System Port/Bus Video LAN HBA Devices

Certification Type (86)
File Server

Test Kit Version (363)
System Certification Kit 7.6.0-44.1

Test Kit Directory
/opt/suse/testKits/system

Company (220175)
Lenovo

Testing Company (220175)
Lenovo

Company URL (optional)

SUSE
YES Certified
SUSE LINUX ENTERPRISE

Important ! The information entered in these tabs will be used on your Yes Bulletin. Please verify your data.

11. Under the System tab, make sure the information entered into the fields is complete and accurate.

Product & Report Information - SLES 11/12 Server - Full (x3650_M5_SLES_11_12_Full-24102016-1)

File Report

View / Print Verify Import Report ? Ok

Company System Port/Bus Video LAN HBA Devices

System Name and Model
IBM x3650 M5 (5462-25Z)

Mother Board Revision
Pass 3

Computer Type
Rack Mount

BIOS / UEFI
UEFI: -[TCE124M-2.10]- (06/23/2016)

CPUs: (2) Intel(R) Xeon(R) CPU E5-2680 v3 2.50 GHz

Memory (Enter Integers Only)
192 GB

Product Description
Place product description here.

Configuration Note (such as special installation or configuration instructions)
Place any configuration notes here.

Important ! The information entered in these tabs will be used on your Yes Bulletin. Please verify your data.

12. When the information in all tabs has been entered, click OK then Save the project.

2.2 SLES Certification Test Suit

2.2.1 Manual Test Group

1. Enable the Serial Port Test if the system has a COM port. The Hibernate and Sleep tests are optional for SLES servers.
2. Run each of the manual tests. Follow any onscreen instructions for each test.
3. For the GPU compute test the TC needs internet access to download the GPU Compute test. See the Server Extended SCK document for more information.
4. The Optical Verify/Write Test will return not applicable if there is not optical device in the system.
5. When prompted, insert the appropriate writable disk that matches the drive type.

Notes: Blu-ray disks are not supported by SLES 15 or earlier. Use a blank DVD for testing Blu-ray drives.

6. When the Optical Verify/Write Test completes, leave the disk media in the disk drive. It will be used during the Stress Tests group.
7. Run the **kdump Test** and follow the onscreen instructions. The SUT will reboot multiple times during the kdump test.

Notes: Kdump is not supported on systems with secure boot enabled.

8. If the SUT has a COM port, connect a serial crossover or null modem cable between the SUT COM1 port and the TC COM1 port and run the **Serial Port 1 Test**.



Notes: Set COM1 = ttyS0 with a speed setting of 115,200, 3f8 and IRQ4.

2.2.2 Automated Test Group

1. Run the automated tests together or separately.
2. The **Verify Setup** NIC test will test all NICs, all NIC ports in the SUT system must be tested.
3. If there are any errors/failures, review the IP address setup instructions.

Notes: The **Verify Setup** tests must **PASS** as shown before proceeding to the **Stress Tests** Group.

4. If the test fails, follow the onscreen instructions to resolve the issue.
5. If the failure persists, refer to the *Troubleshooting & Help* document.

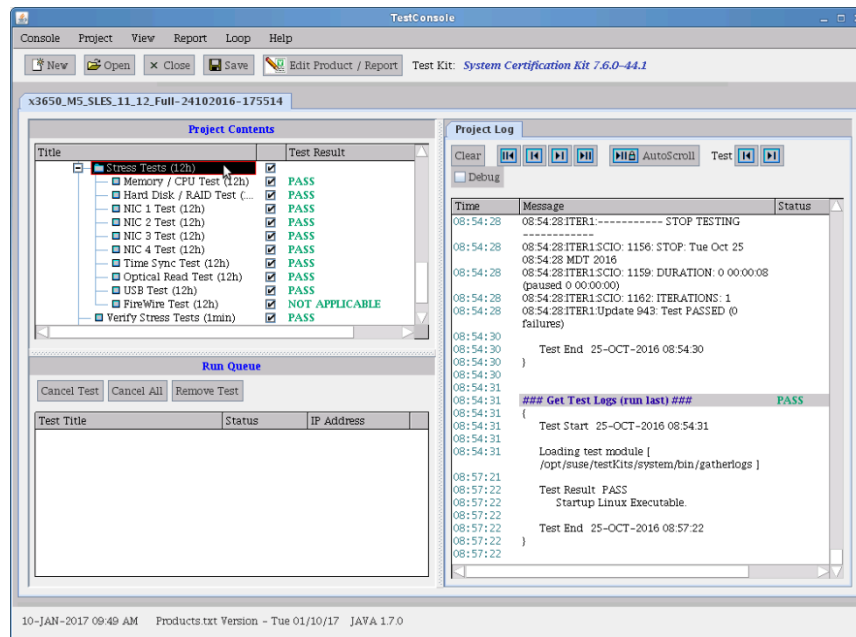
2.2.3 Stress Tests Group

The Stress Tests Group of tests should be run simultaneously.

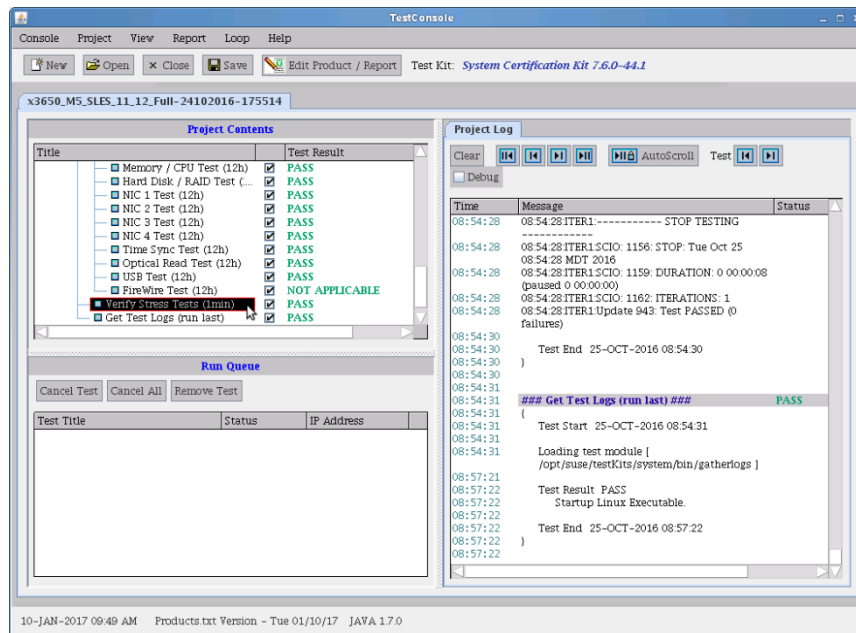
1. Prior to running the Stress Tests, make sure you have optical media, and 2 USB drives, inserted/attached to the SUT and readable by Linux.



- To run the Stress Tests as a group, double-click the Stress Tests (12h) group heading.



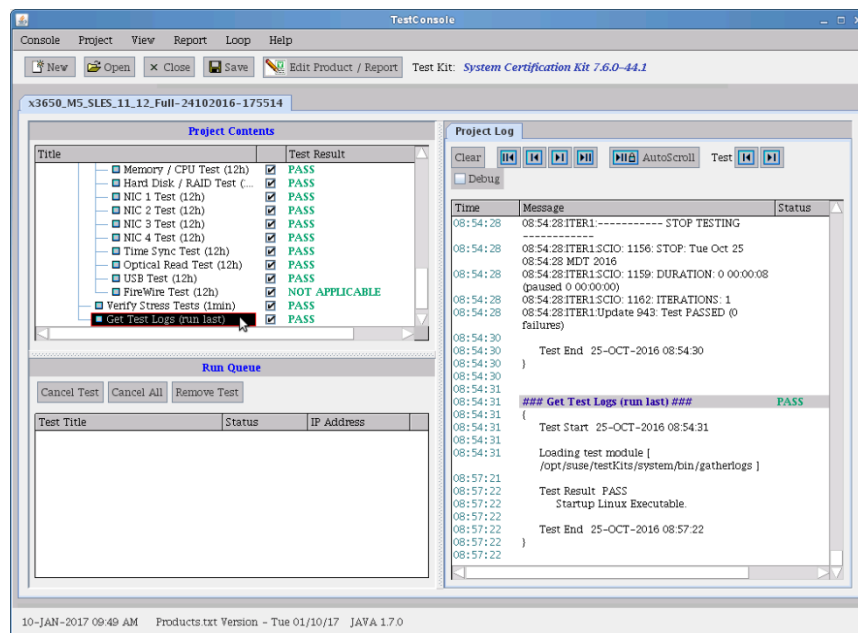
- Allow the Stress Tests to run to completion (12 hours) before proceeding.
- Run Verify Stress Tests.



3 Bulletin Submission

3.1 Post Testing Cleanup

1. After all tests are completed, safely remove all disk media and storage devices from the SUT.
2. Run the **Get Test Logs Test**.



3. If prompted, answer any onscreen questions.
4. Proceed to **Create Bulletin Submission File**.

3.2 Create Bulletin Submission File

1. Click **Edit Product/Report**.



2. Click the **Verify** button.
3. There should be no exceptions listed here, but if some exceptions are present explain them by selecting them and clicking **Edit Explanation**.

Notes: All exceptions should be explained.

4. Click **Report** on TC's toolbar to create a submission zip file with test logs.
5. The resulting zip file (named earlier) will be on TC at
/opt/suse/testKits/ses/results/
6. Copy the zip file to a USB drive.
7. Open your web browser to the **SUSE Bulletin System** (SBS) webpage.
8. Read the bulletin submission file (.zip) into SBS.
9. Click **New Submission** and browse to your bulletin submission file (.zip).
10. Click **Upload**.
11. The bulletin is now in the SBS system. Follow the steps in the SBS users guide to move the bulletin to be reviewed.



4 Revision History

Date	Description
February 2024	Updated for SCK 9.0.
February 2023	Updated for SCK 8.8.
June 2022	Changed filename length limit instructions from 70 to 58. Changed page size to 8.5 x 11.
April 2022	Updated to new 8.7 test kit and Updated for new template and 8.7 Test kit.
April 2021	Updated for 8.6 Test kit
November 2020	Update the Doc to the new corporate Branding.
May 2020	Updated to Work Sans Font.
April 2020	Updated wireless information and diagram.
March 2020	Updated for 8.5 Test kit
January 2020	Updated copyright to 2020
July 2019	Updated for 8.4 Test kit
February 2019	Updated for 8.3 Test kit. Removed references to SLES 11 SP4.

