Sentinel SuperPro Troubleshooting Guide

Revision	Date	Author	Reason for Change
1.	08/07/08	Nonit Sahni	First Release

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Installation Issues

Issue 1) The very first step of installing the SDK sometimes gives an error for the newer version of drivers already installed.

Solution:
1. Go to Start > Run
2. Type regedit
3. Look for the following entries:
4. HKEY_LOCAL_MACHINE > SOFTWARE > Safenet Sentinel > SentinelProtectionServer
5. HKEY_LOCAL_MACHINE > SOFTWARE > Rainbow Technologies > Sentinel System Driver
6. On right hand side double click on CurrentVersion
7. Delete the value written in Value Data.

Issue 2) Error for permissions while installing the drivers on Windows Vista
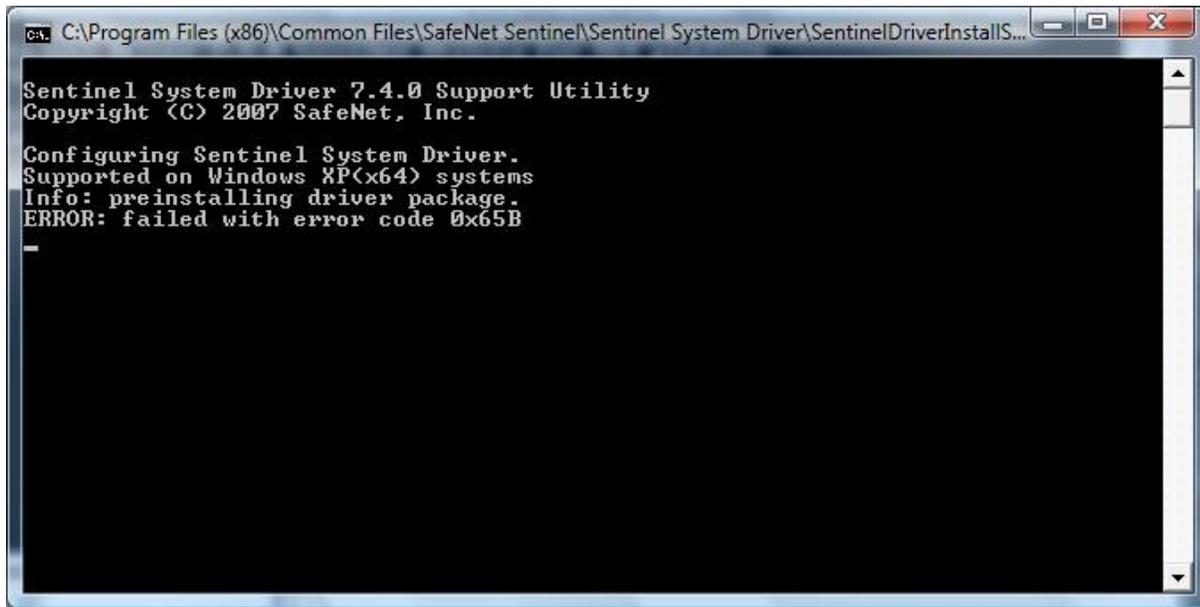
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Solution:

      Right Click on the executable

      Select "Run As Administrator"

Issue 3) **Anti-virus alert: "High Risk. Program is attempting to connect to a DNS server. What do you want to do? Always block connections from this program on all ports (Recommended)."**

Solution:
- In case of NETWORK mode protection strategy the Anti-virus should not block the UDP PORT 6001.
- In case of STANDALONE mode protection strategy, installing only the *"Sentinel System Drivers"* file will resolve the issue.

Issue 4) **Driver signing verification via the internet.**

Solution:
Install the latest drivers provided on the public website:
< http://www.safenet-inc.com/support/tech/sentinel.asp >

    Remarks:
- For our driver's version 7.2.1, SDKs invoked the driver signing verification via the internet.

- For the driver's newer than version 7.3.0 (including 7.3.0), the driver signing verification is not done via the internet.

Issue 5) While running Win32 protected application we get an error "RNBOVDD.DLL: Virtual device driver failed to initialize" under WinNT.

Solution:

The RNBOVDD.DLL is a Device Driver used for DOS and Windows 16-bit applications and is not needed for WinNT and Win32 applications. We need to remove the RNBOVDD.DLL to remove this error. To do so, follow these steps:

1. Run the Registry Editor (\WINNT\SYSTEM32\REGEDT32.EXE).
2. Select the HKEY_LOCAL_MACHINE window.
3. Double click on SYSTEM. Double click on CURRENT CONTROL SET. Double click on CONTROL. Select VIRTUAL DEVICE DRIVERS.
4. Double click on VDD:.......RNBOVDD.DLL line on the right side of the window.
5. Delete RNBOVDD.DLL. Confirm by pressing OK.
6. Shutdown and restart WinNT.

Issue 6) Runtime Error 1607:"Unable to install InstallShield Scripting Runtime" while installing version SuperPro 6.3.0 Toolkit.

Solution:
During initialisation, the Windows Installer Engine attempts to install InstallShield Scripting Engine. When this fails, the error message number 1607 is presented to the user.

Possible causes are:
- An older version of InstallShield Developer is being used.
- An older version of the MSI engine has been installed from a network drive that is no longer available.
- There are insufficient privileges in Windows.
- Another instance of the file "msiexec.exe" is running. Another MSI-based setup is running simultaneously.

Issue 7) Error 1327 Invalid Drive

Solution:
        Solution 1: -

1. Click **Start**, and then click **Control Panel**.
2. In Control Panel, double-click **Administrative Tools**, and then double-click **Computer Management**.
3. In the Computer Management tree, click **Disk Management**.

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4. Right-click the CD-ROM or DVD-ROM drive, or the drive that contains the operating system, and then click **Change Drive Letter and Paths**.
5. Click **Change**, and change it to the original drive letter. Click **OK**, and then click **Close**.

Solution 2: -

1. Click **Start**, and then click **Run**. The Run dialog box opens.
2. In the **Open** field, type **regedit**, and then click **OK**. The Registry Editor opens.
3. In the Registry Editor, locate the following registry key:

   HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Shell Folders

4. In the right pane, note the values in the **Data** column of each entry. If any value contains a drive that is not correct for your computer, right-click the entry and select **Modify**.
5. Type the correct drive letter in the **Value data** field, and then click **OK**. For example, if one of the values is "X:\Documents and Settings\Administrator", the drive letter should be changed to a valid drive on the system, such as "C:\Documents and Settings\Administrator".
6. Repeat steps 4 and 5 for each entry whose **Data** value contains an incorrect drive.
7. Repeat steps 3 through 6 for each of the following registry keys:
   - **HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\User Shell Folders**
   - **HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion**
   - **HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\Shell Folders**
   - **HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer\User Shell Folders**
8. Close the Registry Editor and run the installation again.

Implementation Issues – Toolkit Specific

Issue 1) **SuperPro keys are not programmed properly when we try to program them using our old project (i.e. project built in some old toolkit).**
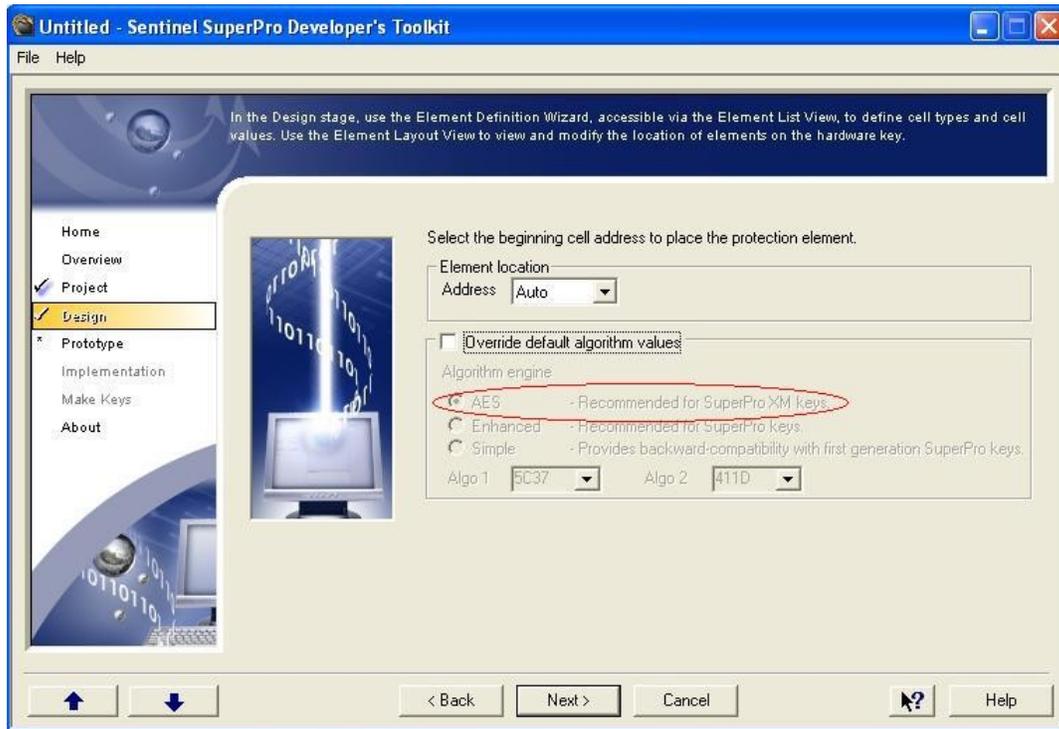
Note: This issue was observed till toolkit version 6.4.3 and older. SDK 6.5.0 fixes this.
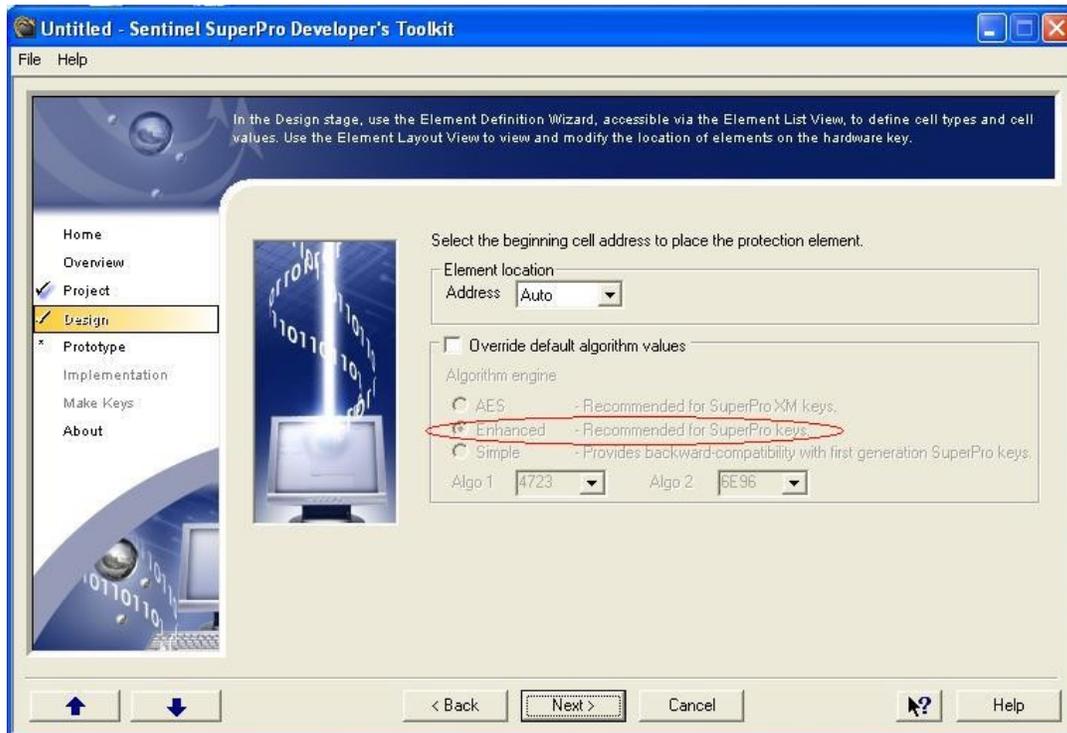
Solution:
1. Open the toolkit
2. Go to Advanced options
3. Select Override default algorithm values
4. Select Enhanced

Screenshots are as below:

(A) Default

(B) Desired

Issue 2).Net application gives the following error in prototype step:

ERROR(0418) -- Import Overwrite not supported with this Application .

Solution:
1. Open the SSP Toolkit.
2. On the left side of Toolkit click on *Design* option and then click on *Automatic Protection* button.
3. Select the *Show advanced options* check box.
4. In the *Unprotected file* field, provide the path of unprotected application.
5. In the *Protected file* field, provide the path for protected application.
6. Click on *Standalone mode only*.
7. Click on Hide import symbols check box and make it uncheck (by default it is checked).
8. Click *Prototype now*.
9. Click on *Program key* button and close it.

<u>Implementation Issues – API Protection</u>

<u>Issue 1)</u> Detected Memory Leaks while building the project

<u>Solution:</u>
Make sure you have called the API RNBOsproCleanup( ) after
RNBOsproReleaseLicense().

<u>Issue 2)</u> Getting same Query-Response value from a cell when the protection strategy involves Algorithm implementation.

<u>Solution:</u>
- Check the cells for algorithm been activated or not.
- The Wizard gives the cell address in decimal. Make sure to convert the cell address to hex when accessing them.

Note:
1. Algorithm takes 2 cells (HEAD and TAIL).
2. Query MUST ALWAYS be done on Head, Never query Tail.
3. Algo MUST start in EVEN cell
4. If Tail is 1-7999, algo is Off, if 8000-FFFF it is ON
5. Counter MUST be in front of head of algo
6. When Counter = 0, Tail is subtract 8000
7. Password cells MUST be in back of algo (after tail)

<u>Issue 3)</u> Error LNK2019: unresolved external symbol _iob referenced in function SENTINELSUP100O
<u>*OR*</u>
Spromeps.lib(macAddr.obj): error LNK2001: unresolved external symbol _iob

<u>Solution:</u>
In Visual Studio 2005 there is no _iob and this has been used in our libraries.

A fix for this error can be by defining in your program a re-direct to the 2005 function which is __iob.

Example:
extern "C" { FILE _iob[3] = {__iob_func()[0], __iob_func()[1], __iob_func()[2]}; }

Issue 4) "R6002 - Floating point not loaded" while running a shelled application.

Solution:
- Use the latest toolkit for protecting your application.
- Linking with MFC DLLs rather than statically linking to the MFC resolved the error in many cases.

Issue 5) After calling RNBOsproGetSubLicense() API, ERROR CODE: 4, SP_ACCESS_DENIED is returning.

Solution:
This could be due to faulty implementation of sublicensing, please follow the steps below for correct implementation:

Create a Sublicense Custom Element using toolkit and store some value into a Locked Data Word (access code 1)

Steps to add a cell of type sublicense to implement sublicensing:

1. Open Sentinel SuperPro Toolkit
2. Go To Design Stage. Click Custom Element
3. Choose Sublicense as the custom element to add. Click Next
4. Give a name to this element say Sublicense. Click Next
5. In the Count field add the sublicense value or limit required say 10
6. In the Address field select the cell address where you want to store this sublicense value. Sublicense cell should be a locked cell i.e with access code 1 (you can view under Memory View that what type of cell it is, in the toolkit itself)
7. Click Finish

Then perform the Prototype and Make Keys stage.

Run Sproeval or API Explorer available in toolkit to verify.

- Click FormatPacket
- Click Initialize
- Click SetContactServer (Set any of the Network/Server mode. Sublicensing won't work in driver or standalone mode, because licensing is maintained via Sentinel Protection Server. Also server must be running on machine where the key is attached.)
- Click FindFirstUnit
- Click GetSubLicense (Specify the cell address where you have stored the sublicense limit)

Issue 6) The RNBOgetSubLicense() API gives an error even when properly programmed a sub license value?

Solution:
- Typically the reason is because you are communicating to the key directly via the driver rather than via the SuperPro Server.
- When communicating to the key in standalone mode, there are no network features available.
- Only through the SuperPro Server can you get the network features to work.
- Try setting the contact server to the IP addres of the machine running the server, or if it is on the same machine using the RNBO_SPN_LOCAL, or RNBO_SPN_BROADCAST modes, so that the client will communicate to the key via the SuperPro Server.

Issue 7) Second call to RNBOFindFirstUnit(..) API, spromeps.lib returns SP_UNIT_NOT_FOUND and not SP_INVALID_OPERATION.

Solution:
In earlier SDK's like SSP 6.3.1, the following lead to this error:

1) In following server modes RNBOsproFindFirstUnit throws error 72 on second call:
   -RNBO_SPN_LOCAL
   -RNBO_SPN_BROADCAST
   -RNBO_SPN_SERVER_MODES
2) In following modes it throws error 3 on second call of RNBOsproFindFirstUnit .
   -RNBO_STANDALONE
   -RNBO_SPN_DRIVER
   -NO-NET
   -RNBO_SPN_ALL_MODES.
This issue can be resolved by switching over to the latest SDK (6.4.0 onwards) in which second call of RNBOsproFindFirstUnit thorws success.

Issue 8) RnboSproFindFirst Unit function is crashing in VC++.

Solution:
SuperPro library is Multithreaded hence in VC++ Project settings, please make sure you have set the option Multithreaded at the following location :
Project Settings ->C/C++Tab ->Code generation ->Use runtime library.

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<u>Implementation Issues - Shelling</u>

<u>Issue 1)</u> Shelling notepad.exe with SuperPro on winNT does not work.

<u>Solution:</u>
The notepad.exe from WinNT is not supported by Sentinel Shell tool , use notepad.exe from win9x instead (this shelled exe would work on both win9x and winNT).

<u>Issue 2)</u> Error 0133 (Error 5) after attempting to Shell an application?

<u>Solution:</u>
The most likely reason for this error is because the file you are trying to Shell, is dependant on other files which cannot be accessed. Such as shelling of an EXE that is dependent upon some dll(s).

Steps to resolve this:
1) Right-click on all dependent file(s) (dll(s)) and select "Properties".
2) Uncheck the attribute "Read Only" and reshell your application.

Other issues that could cause the error are as follows: -
- The file you are trying to extract after shelling has the same filename that you are trying to shell. (This will result in a share conflict).
- The file you are trying to Shell is read only.
- You are trying to write to a location but cannot do so because you have insufficient privileges (e.g. Network) or because there is no space left.
- You have not checked overwrite existing output file in the design dialogue below.

<u>Issue 3)</u> Run-Time Error R6034 while shelling application

<u>Solution:</u>
- This issue is more linked to Microsoft's way of using dll's and libraries. As per Microsoft code, we need to remove ***msvcr80.dll*** from the system32 folder only as mentioned in DOC ID 5802.

- However another option that could be tried is making a manifest file and it should be kept in the same folder where the shelled application is kept. Then run the shelled application.

Issue 4) Running a prolog application (shelled with Sentinel SuperPro Shell 1.1.3.0) throws the following error at runtime:
Error 0027-Code Checksum failed.
                              OR
Shelling large .NET DLL's is not possible.
                              OR
Using .NET Framework 3.5 does not allow the application to start.

Solution:
Replace the existing **RBS32SP.dll** with the **RBS32SP.dll** (version 1.1.3.3) file
(**Doc Id**: 6909) at the following directory location:

<SafeNet Sentinel\SuperPro\6.5\Tools>

<u>Monitoring Tool Issues</u>

Issue 1) Sentinel License Monitor is not working

Solution:

      Please check the points listed below:
1. Host system is accessible using ping command.
2. JRE version 1.6 or higher is installed on client system.
3. Sentinel Protection Server is running on host system.
4. Port 6002 (the default port used by the Sentinel Protection Server to respond to the client's HTTP requests) is not busy on the client system.

Issue 2) "Error in downloading the client information file" error appears

Solution:

1. Try the steps listed below:
2. Launch Internet Explorer.
3. From the Tools menu, select Internet Options.
4. Click the General tab.
5. Under Temporary Internet Files, click Settings.
6. Select "Every visit to the page".
7. Click OK.
8. Click the Security tab.
9. Select the Internet zone, if not already selected.
10. Click Custom Level.
11. Reset the custom settings to Medium.
12. Click OK to apply the settings specified.

Issue 3) Unable to Cancel a License while using keys in a Network

Solution:

Steps for Cancelling a License:

1. On the system where Sentinel Protection Server is installed, run the Password Generation utility to generate the *sntlpass.dat* file. It is available at the following path:
❏ **For Windows 32-bit**: *<OS drive>:\Program Files\Common Files\SafeNet Sentinel\Sentinel Protection Server*
❏ **For Windows 64-bit**: *<OS drive>:\Program Files(x86)\Common Files\SafeNet Sentinel\Sentinel Protection Server.*
2. Restart the Sentinel Protection Server.

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3. Launch the Sentinel Licenses Monitor using the steps described in the "Steps for Launching the Sentinel License Monitor" on page 5. The key information page will appear.

4. Select the key whose licenses are to be canceled. The license usage page will appear.

5. Select the **Cancel** check box(es) for the licenses to be canceled. You can cancel up to 10 licenses at a time.

6. Click **Cancel License Session**. A dialog box will appear prompting you to provide the same password specified in step 1.

7. Click **OK**. The key information page will appear.

8. You can verify for the license(s) canceled by launching the license usage page.

Unable to cancel a license

The Sentinel License Monitor will not prompt you for any errors encountered while canceling a license. However, a license will not be canceled if there is excessive traffic in the network or you specified a wrong password in step 6.

Generic Issues

Issue 1) **Distributor cannot activate applications or update keys using the License Generator Utility?**

Solution:
There are several possible reasons why a distributor could be having problems activating or updating applications:

1) **His distributor key is not connected.** The distributor *must* have his distributor key connected in order to generate license codes for applications using the distributed activation type. Verify that your distributor has his distributor key appropriately and firmly connected.

2) **The activation counter on his distributor key has reached zero.** If there are no more licenses to activate or update applications left on the distributor key, your distributor will not be able to generate license codes. You need to increment the activation counter on the distributor's key through field activation.
.

3) **He is using an incorrect distributor key.** The distributor key connected to the workstation must be programmed with the Sentinel SuperPro project the application was protected with. If your distributors are responsible for activating multiple applications with multiple keys, it is important that the correct key be connected when attempting to generate license codes.

4) **The wrong .DST file is being used.** The .DST file opened in the License Generator Utility must be the file that was created from the same project you programmed the distributor key with, and protected. If the wrong .DST file is being used, license codes cannot be generated.

5) **The Sentinel Protection Server is not running.** To use the License Generator Utility, the Sentinel Protection Server must be installed and running on the same workstation the distributor key is connected to and the utility is being run on. Ask your distributor to verify that the server is running, using the instructions found in "Using the Field Exchange Utility"

Issue 2) **Protected application fails to locate the dongle using any remote client while the application is protected under Standalone mode.**

Solution:
1. Open the SSP SDK (version 6.5.0).
2. On the left side of Toolkit click on *Design* option and then click on *Automatic Protection* button.
3. Select the *Show advanced options* check box.
4. In the *Unprotected file* field, provide the path of unprotected application.
5. In the *Protected file* field, provide the path for protected application.
6. Click on *Standalone mode only*.

7. Click on *Check terminal client* and make it uncheck.
8. Click *Prototype now*.
9. Click on *Program key* button and close it.

Issue 3) Running multiple instances of a protected application consumes multiple licenses even on the same machine.

Solution:
 We need to use the License Sharing feature provided by the toolkit.

1. Open the SSP SDK (version 6.5.0).
2. On the left side of Toolkit click on *Design* option and then click on *Automatic Protection* button.
3. Select the *Show advanced options* check box.
4. In the *Unprotected file* field, provide the path of unprotected application.
5. In the *Protected file* field, provide the path for protected application.
6. Click on Network *mode only*.
7. By default *enable license sharing* option remains checked.
8. Click *Prototype now*.
9. Click on *Program key* button and close it.

Issue 4)   'spnsrvnt.exe - Application error'
"The instruction at "0x003b215d" referenced memory at "0x003b215d". The memory could not be "read".

Solution:

Solution 1:

   1) Download and install our utility SSDCleanup from the link below.
   2) Install the latest drivers available on our website (link as below).

< http://www.safenet-inc.com/support/tech/sentinel.asp >

Solution 2:

Run the following command from the command prompt:
netstat -a -b > netstat_ports.txt

It will create a file *netstat_ports.txt.* Now look in for the following entry:

  UDP   <machine name>:6001   *:*   2000
  [spnsrvnt.exe]

If there is some other application running on this port (UDP 6001) you need to remove
that or change the port for that application.

Issue 5) Error 1406: Could not write value to key OR
Error 1406: Could not open key.

Solution:
On Windows XP, "Error: 1406, COULD NOT OPEN KEY" is a "Permissions" related
error message.

Steps to resolve "Error: 1406, COULD NOT OPEN KEY":
1) Begin the software installation. When the 1406 error appears, leave the error
    message on the screen and push the Windows key on your keyboard. This will
    allow access to the Start menu.
2) Click Start, then Run.
3) In the Run window, type regedt32 and double click the
    HKEY_LOCAL_MACHINE folder. This will expand or open the folder.
4) Locate the SOFTWARE folder. Right-click on this folder, and choose
    Permissions.
5) In the Permissions for SOFTWARE window, click Add.
6) Type Administrator and click OK. Make sure that Administrator is highlighted
    under Group or user names.
7) Under Permissions for Administrator, check the boxes under Allow for Read and
    Full Control.
8) Select Apply but don't close the Permissions window yet.
9) Click Add again. Type System, and select OK. Make sure that System is
    highlighted under Group or user names.
10) Under Permissions for System, verify that the boxes under Allow for Read and
    Full Control are checked. Select OK. This closes the Permissions window.
11) Exit the registry: From the File menu, select Exit.
12) Back in the 1406 Error window, select Retry. The install should now be able to
    proceed.

Issue 6) Sentinel Keys Failure on Dell Precision WorkStation T3400.

Solution:
Two ways to resolve this issue:

1) Updating the BIOS for this model to A05.
   Note: The following changes have been made to BIOS A04 to create A05:
   (A) Improve OS licensing handling.
   (B) Fixed a potential resume issue when both PS/2 and USB devices are connected to the system.

Link to refer more on this:
<http://support.dell.com/support/downloads/driverslist.aspx?c=us&l=en&s=gen&Service Tag=&SystemID=PRE_T3400&os=WLH&osl=en&catid=&impid>

2) Workaround is to power off and on the system. Logging off and back on also continues to work.
   Note: Reboot does not work. Shutdown is to be done.

Issue 7) After installing Windows XP SP2, I can no longer find the Sentinel SuperPro key on the network.

Solution:

Microsoft released SP2 has a default firewall policy to block the inbound connections. Therefore, after installing SP2, UDP port 6001 might get blocked and therefore the trouble. So, whenever this is the case, open the port in the advanced option of the IP firewall. This applies to networked implementation of security only.

Issue 8) Sample program or application can find the key but the SuperPro Medic cannot find the key?

Solution:
The SuperPro Medic specifically does not use the RNBOsproSetContactServer() API. Because of this, if your system has the environment variable NSP_HOST set to something other than what was used in the Medic, you will get an error -1. Simply remove the NSP_HOST environment variable.

Issue 9) Are all the cells in the key flashed every time a "Write" operation is performed on a key? What is the MTBF for each cell?

Solution:
No, only the cell that data is written to and on average the guaranteed value is 100,000 times. However recent tests carried out on SuperPro keys show the MTBF to be 1,000,000 times.

Issue 10) Hardware key not found on Dell Optiplex GX110?

Solution:
The Sentinel keys cannot be seen with the default port mode of ECP (Extended Capabilities Port) on the Dell Optiplex . This appears to be the case for most Dell machines: Dimension, Optiplex, Precison).

In order to get your Sentinel key recognized, do the following:

- Go into the BIOS and change the parallel port mode to either PS/2 or AT.
- Save the applied changes and reboot.
- Your key should now become recognized with the protected software and Sentinel Medic utility.

Note: You will need to uninstall and re-install the Sentinel System Drivers after you have completed the BIOS change.

Issue 11) Program protected with Sentinel SuperPro (parallel port key) and the medic program, return an error
Error code 7 - port is busy

Solution:

- Typically, this error is returned when another device, also using the parallel, does not allow our system driver to communicate over the port.
- In most cases, this other device includes printers and scanners.
- Also in most cases, these devices taking over or capturing the parallel port, are Hewlett Packard devices.

Issue 12) SuperPro/SuperProNet won't work with BackPack CD-RW drive.

Solution:

- The BackPack CD-RW drives utilizing a non compliant communication standard.
- This communication can cause the key to fail.

- It is recommended that if both the SuperPro and this CD-RW drive are to be used, separate the devices on two separate ports.
- You can either add a PCI based parallel port, or if your operating system supports USB, utilize a USB version of the SuperPro or BackPack CD-RW.

Issue 13) USB SuperPro seems not to work with my VIA motherboard.

Solution:

- The VIA chipset used in a number of motherboards (KT133, KT7, Asus A7V) has exhibited such problems.
- To solve this, turn ON "Enhance Chip Performance" in the BIOS via CPU soft menu.
- Turn OFF "Assign IRQ to USB" and download the 4 in 1 drivers from VIA hardware.

Issue 14) Key not found (E0003) error when computer goes into standby (hibernate) mode.

Solution:

When computer goes into standby or hibernate mode and is reactivated by mouse movement etc, then one must unplug the hardware key and then plug it back in before one could run the software again. This issue is faced if the application is a shelled one.

Steps for resolving this:
1) Download the latest shell dll version available on Customer Connection Centre i.e. http://c3.safenet-inc.com
2) Rename the original RBS32SP.dll present under C:\Program Files\SafeNet Sentinel\SuperPro\<version>\Tools and copy the latest dll there.
3) When the computer is again reactivated from standby mode the software would be still running and there is no need to unplug and replug the hardware key.

Note: There is no issue with API protected applications.

Field Activation Issues

Issue 1) Error 502: SP_ERR_ILLEGAL_UPDATE
while applying the License Code through Field Exchange Utility.

Solution:
We need to check with the end-customer whether:
1. He is updating the correct key?
2. He has sent the Request code from the same key to be updated?

Issue 2) When toolkit is upgraded, keys in field give the following error
while applying the Update License Code: "Error loading the dll"

Solution:
1. Send the customer new ***Usafe32.dll*** from the following path:
   a. <>:\Program Files\SafeNet Sentinel\SuperPro\<toolkit version>\Tools
2. Get the Locking Code again.
3. Generate a new Update code and send it to the end-customer.

Key Not Found Issues

The initial basic steps to be followed in all cases are as follows:

1. Install our latest Sentinel System Driver from the public website:
   http://www.safenet-inc.com/support/tech/sentinel.asp
2. Install our Sentinel Advance Medic (SAM) application and check the key. Link for SAM is as below:
   http://c3.safenet-inc.com/downloads/3/7/37F484A1-7CB9-4088-A2A0-27B85402EF20/Sam13.exe
3. If this does not work install the CleanUp Utility (SSDCleanup) and then install the drivers.

SSDcleanup.exe is a utility, which removes all installations of Sentinel System Driver from the system. The purpose of this utility is to solve the "sticky" installation problems faced by the customer. The "Sticky" installation problem relates to that state of Sentinel driver installation, which leaves the customer in a situation where he can neither install newer version of the driver nor un-install the older one. This utility will clean up all the installed Sentinel Drivers and bring the system to a state it was before installing any of the Sentinel Drivers.

$#$) Basic Troubleshooting for parallel Keys

The parallel keys are only supported on a built-in parallel port, a PCI to parallel card on a desktop or a PCMCIA to parallel card on a Laptop. Make sure the PCI or PCMCIA card is IEEE 1284 compliant.
1. Check if the key is properly attached. The key should not be damaged.
2. Please make sure that drivers are installed properly by running Sentinel advance medic.
3. If there are any issues with the driver, please uninstall and reinstall the driver.

Things to look for:

1. If you are using a parallel port key, make sure your BIOS or CMOS settings for the parallel port are set to ECP, Bi-Directional, Normal, AT, or PS/2. If you have an option to set them to AUTO, ENABLE or DISABLE, set to ENABLE. If you have a Dell Computer brands Dimension 8100 or Optiplex, you might need to set the settings to either PS/2 or IBM AT. Once the changes have been made, make sure you reinstall the Sentinel System Drivers. For Toshiba Laptops Satellite Pro download the latest BIOS patch from the Toshiba web site and go to Control Panel/Administration Tools/Device Manager and expand the serial/parallel port. Double click the parallel port. Set the port address to 378, IRQ 7 and DMA to 3, and then reboot the system.

2. If the drivers are installed and your program still doesn't find the key, please try our utility Sentinel SuperPro Medic or Sentinel Advanced Medic, found on our web site, under downloads; choose SuperPro as the product and look under Other Downloads. You would install this product and run it. With SuperPro Medic, select the Mode you are using and click on Find SuperPro. With Sentinel Advanced Medic, click Troubleshoot. If the key is found, then contact your software vendor with a detailed explanation of the problem. They should assist you with getting the protected application working correctly.

$#$) Troubleshooting for USB Keys

1. Check if LED is on. If yes then proceed to step 2 incase LED is not ON it means your USB key has gone bad.
2. Go to Control Panel>System>Hardware
3. Click on Device manager
4. Make sure there is no (!) mark or (x) mark on Safenet USB SuperPro/UltraPro or Sentinel Hardware Keys icon.
5. If no entries are found, please check the key on a different USB port on this computer and/or check the key on another computer.
6. If there is an (x) mark or (!) mark on Safenet USB SuperPro/UltraPro or Sentinel Hardware Keys icon.

$#$) Parallel Port Settings

If you are using a parallel port key then check in the BIOS, the port must be set to "enabled" and not "OS controlled".
There are some BIOS settings, which we do recommend to our customers and are useful for Windows:
Mode: ECP or PS/2,
Port address: 378h,
IRQ: 7 and
DMA: 3

$#$) Blue Screen Of Death (BSOD)/Crash

This issue is encountered due to the "Sentinel.sys" file.

As you are facing problems because of "Sentinel.sys" file, we recommend you to please follow the simple steps given below to remove the file:
1. Reboot the system into "Safe Mode". To reboot in Safe Mode:
        a. Restart the system. (Click on "Shut Down" from the "Start" and choose the option "Restart").

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       b. Press the F8 key when the system restarts prior to the actual Microsoft
Windows startup screen.

       c. Choose the option "Safe Mode" from the choices given of boot-up type.

2. Uninstall the Sentinel System Driver. To uninstall the Sentinel System Driver:

       a. Go to "Add/Remove Programs" from the Control Panel via "Start > Settings >
       Cntrol Panel ", once the system boots in Safe Mode.

       b. Find the "Sentinel System Driver" from the list. Remove the item.

       c. However, if you do not see the "Sentinel System Driver" on the list, proceed to
step 3.

3. Manually delete the "Sentinel.sys" file. To delete the "Sentinel.sys" file: Co

       a. Open the Windows explorer.

       b. Type C:\winnt\system32\drivers\ or Windows\System32\Drivers in the address
field.

       c. Press "Enter".

       d. Find "Sentinel.sys" from the list of files.

       e. Right Click on the file, and choose delete. Choose "Yes" when asked for the
       confirmation ("Are you sure").

4. Reboot the system.
Now reinstall the latest driver.

To download and install the latest Sentinel driver, please click on the hyperlink given
below:

    < http://www.safenet-inc.com/support/tech/sentinel.asp >

In case you are using a USB key, do not insert it before the sentinel driver has been
installed otherwise Windows will install a default driver for it.
Run the Medic/Sentinel Advance Medic utility from the same link as the driver to make
sure both the driver and the key are detected.

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