Enterprise Erase EE Array User Guide
Revision 3.1

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1.0   Product Overview

1.1   Description

Enterprise Erase Array is a hardware and software appliance used to eradicate data from hard drives contained in storage arrays or towers. The appliance is designed to communicate to the hard disk drives in a tower via a direct connection with the shelves inside the tower. Each of these shelves typically houses 14 to 16 hard disk drives.

Enterprise Erase Array consists of a 2U server chassis with two cards installed. These cards are either SCSI or fibre channel protocols. The appliance may have two SCSI cards, two fibre channel cards, or one of each. This card type configuration is set at the time of purchase and can only be changed by returning the appliance to Tabernus to be retrofitted.

Each of the two cards housed in the 2U chassis can communicate with two storage shelves at a time. This allows for each card to erase up to 32 drives simultaneously. If the appliance is configured with one type of card (both SCSI or both FC cards), then the appliance can be used to erase four shelves (up to 64 drives) simultaneously.

For more information on Enterprise Erase Array, including a compatibility chart showing all of the storage towers that can be erases using the appliance, please visit www.tabernus.com.

NOTE: Some Enterprise Erase Array appliances contain three cards.

1.2   Items Included in Enterprise Erase Array

Enterprise Erase Array comes with the following:

- A 2U chassis with two internal cards (either SCSI or fibre channel)
- Two sets of cables to directly connect appliance to storage shelf
- Power cable (standard wall outlet)
- Product User's Manual

1.0   Product Overview (cont.)

The user of the appliance will need to supply the following:

- Keyboard
- Mouse
- Monitor

1.3   Preparation for Use

1.   The first step in preparing EE Array for use is to connect the user supplied mouse, monitor, and keyboard. All appliances have ports for USB mice and keyboards, and some may still include PS2 ports.

2.   Next connect the supplied power cable to the back of the EE Array appliance and to the wall outlet.

3.   Using one set of the supplied cables, directly connect from the card in the rear of the EE Array appliance to an input/output port on the back of the target storage shelf.

Note: The communication port used to directly connect the appliance to the storage tower shelf can take many forms depending on the design of the storage shelf. If questions arise regarding directly connecting the appliance to a storage shelf, please contact Tabernus support.

4.   Turn on the EE Array appliance by first depressing the power button on the rear of the appliance. This is followed by depressing the power button on the front of the appliance.

Note: For EE Array to properly see the drives contained in the target storage shelf, power must be supplied to the storage shelf before applying power to the EE Array appliance.

2.0   Erasing a Hard Drive Using EE Array

2.1   Once the appliance has been powered on and the Linux software has booted, the main desktop screen will appear on the monitor. Figure 2.1 below shows the main desktop screen.
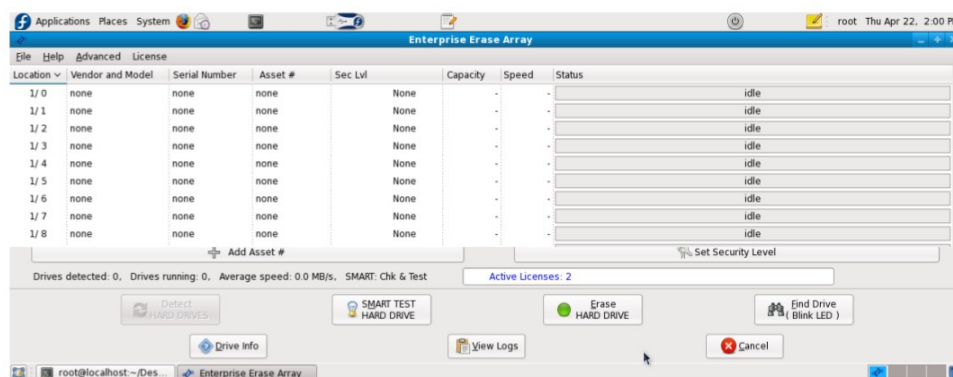

Figure 2.1 – Main Desktop Screen

2.2   **Double** click on the desktop icon for Enterprise Erase to launch the application.
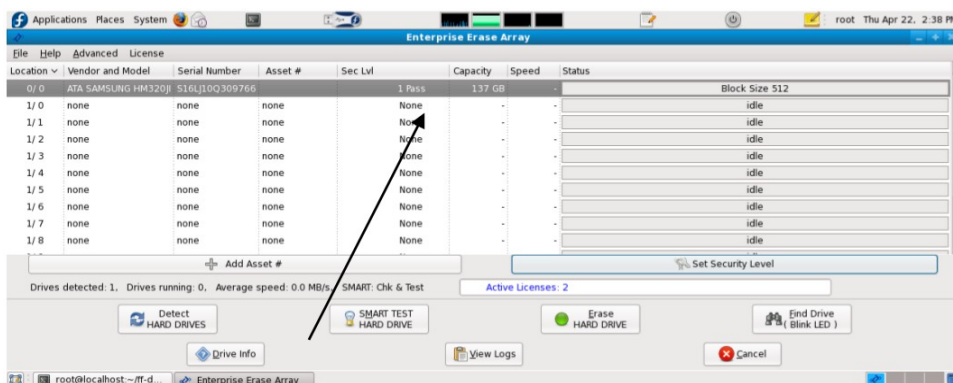
2.0   Erasing a Hard Drive Using EE Array (cont.)

2.3   After the software launches, you will see the main user interface (GUI). Figure 2.2 shows this interface below:

Figure 2.2 – EE Array Main User Interface Screen (GUI)

2.4   To begin the erasure process, first highlight the drive you would like to erase from the list of devices on the user interface screen. Figure 3.3 below shows a highlighted drive as it would appear on the screen:


Figure 2.3 – User Interface Screen with Drive Highlighted

2.0 Erasing a Hard Drive Using EE Array (cont.)

NOTE: It is possible to start drives in batches by highlighting multiple drives at a time as shown in figure 2.3. Simply hold the shift key while selecting multiple drives.

2.5   To begin the erasure process on the selected drive(s), press the button at the bottom of the main user interface screen labeled "Erase Hard Drive". Figure 2.4 shows the location of this button.
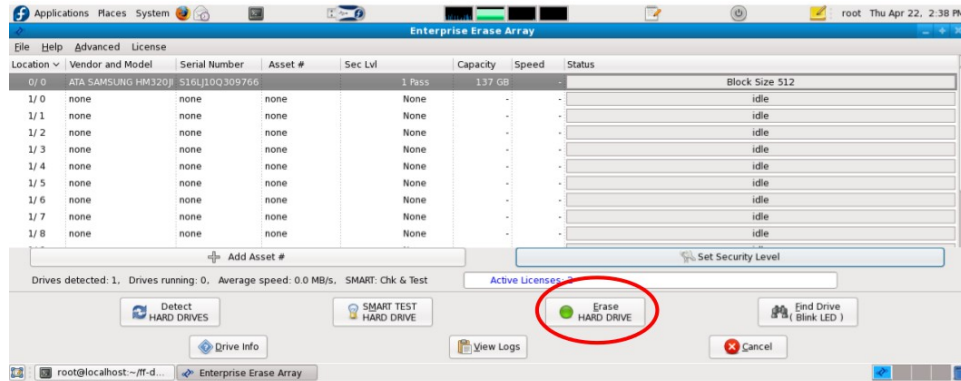

Figure 2.4 – Location of Erase Button on Main User Interface Screen

2.6   After pressing the "Erase Hard Drive" button, a pop-up window will appear that allows you to choose the level of overwrite you would like to execute on the selected drive. Figure 2.5 shows this pop-up window.

NOTE: Choices of overwrite level is a configurable option on many Tabernus products, so the screen displayed on your unit may not match the one shown in the figure below.
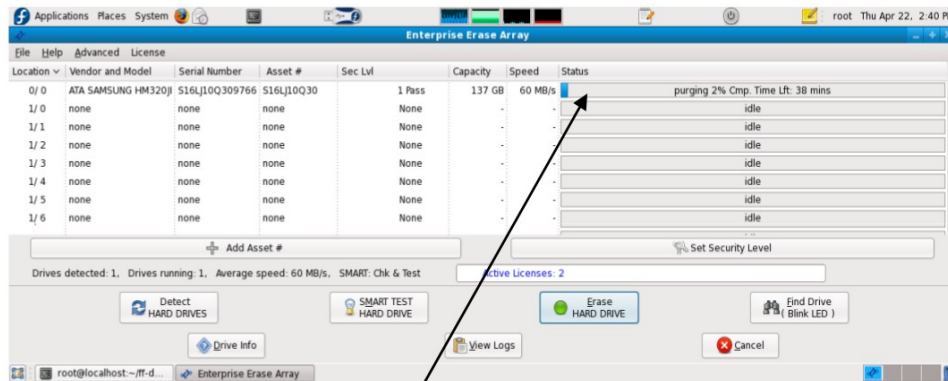
2.0 Erasing a Hard Drive Using the EE Array (cont.)
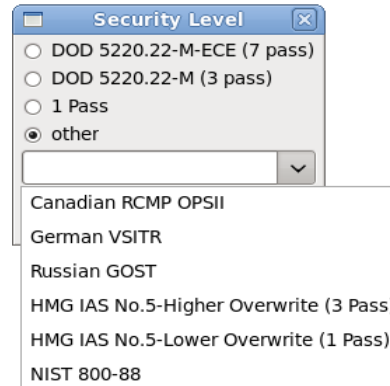
Figure 2.5 – Security Level Pop-up Window

2.7 When this window appears, select the desired erasure level and press "OK"; the process will begin.

2.8 After the erasure process is started, the status of the process is displayed on the user interface screen. Figure 2.6 shows where the progress can be viewed.

Figure 2.6 – User Interface Screen Shows Erasure Process

2.0 Erasing a Hard Drive Using the EE Array (cont.)

2.9   Once the erasure process is complete, the completed drive will be highlighted in green indicating a successful erasure. Figure 2.7 shows the successful completion of an erase:
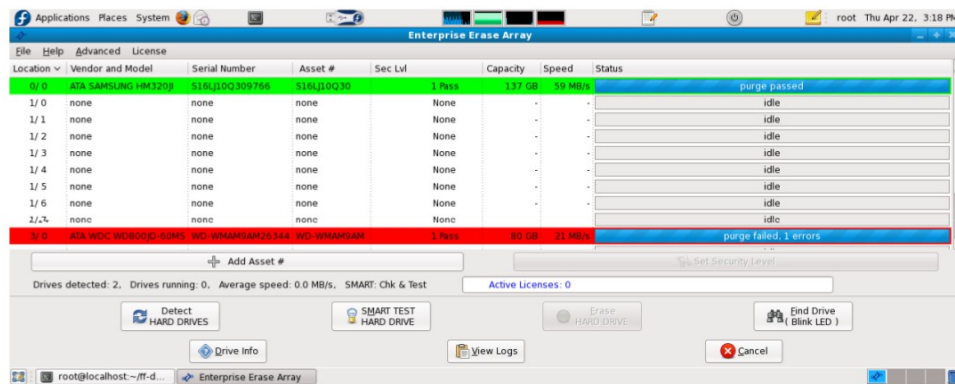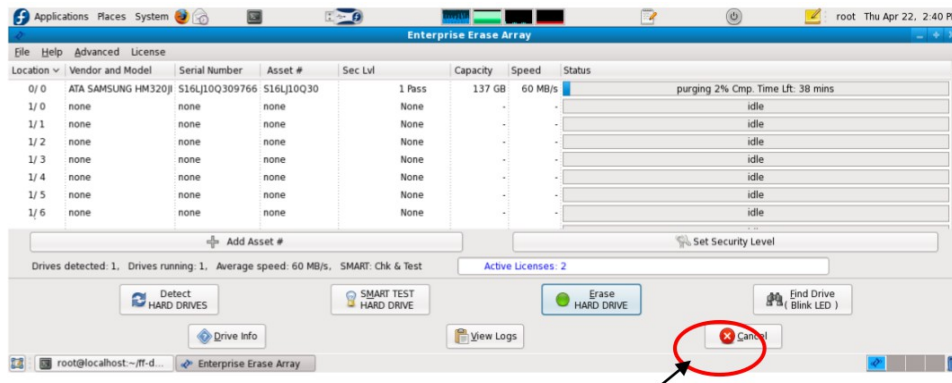

Figure 2.7 – Successful Completion of Erasure Process (Green Bar)

3.0   Canceling an Erase in Progress

3.1   It is possible to stop an erase in process. First, highlight the drive from the device list on the main user interface. This can be done in the same way as shown in section 2.4 of this document.

3.2   Once the drive has been selected, press the button at the bottom of the user interface screen marked "Cancel". Figure 3.1 shows the location of this button.
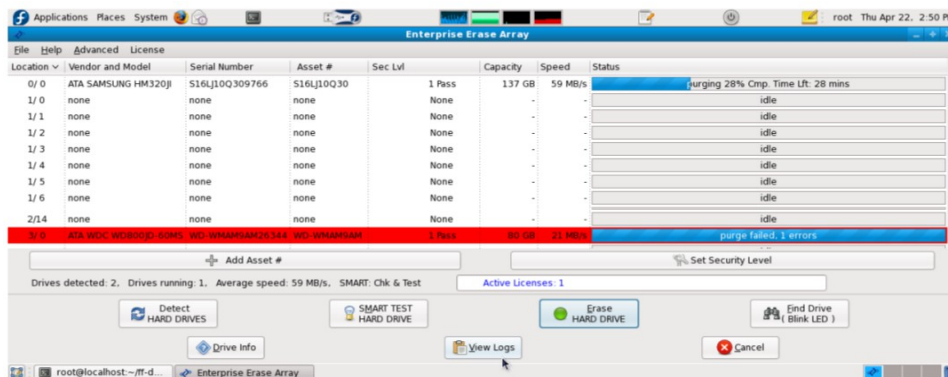

Figure 3.1 –   Successful Completion of Erasure Process (Green Bar)

3.3   When the erasure process is canceled, the device will appear with a yellow bar in the device list showing that the erase has been stopped.

3.0 Canceling an Erase in Progress (cont.)

3.4   When a drive fails the erasure process, the drive is highlighted in the GUI with a red bar. This can be seen in Figure 3.2 below:


Figure 3.2 – Location of Cancel Button on the Main User Interface Screen

4.0   Using the Sector Viewer

Sector viewer allows the user an opportunity to view data contained on sectors of any drives that can be seen by the EE Array appliance.

4.1   To view the sectors on a particular drive, highlight the drive you would like to view on the device list. This is done in the same way as is shown in section 2.4 of this document.

4.2   After highlighting a drive, right click on the selected drive and a "Sector Viewer" dialog box will be displayed. Click on this dialog box and the Sector Viewer windows will appear. The sector viewer is shown in Figure 4.1 below.
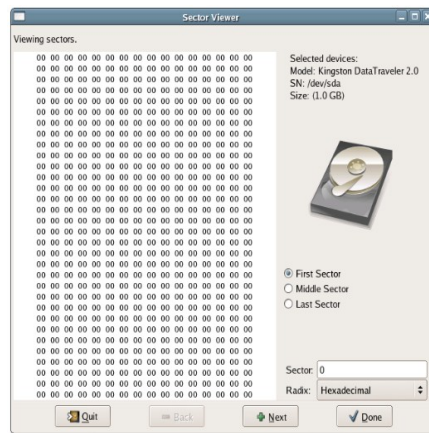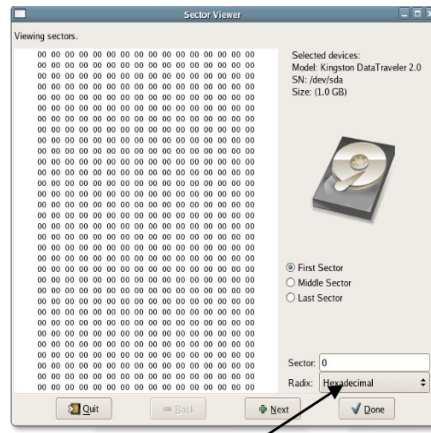
Figure 4.1 – Sector Viewer Screen

4.0   Using the Sector Viewer (cont.)

4.3   Use the "Next" or "Back" button to go to the next sector. You can also enter the sector number in the "Sector" input window. Figure 4.2 shows the button locations.
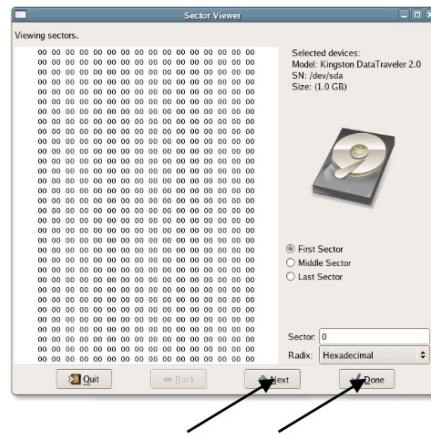
Figure 4.2 – Sector Viewer Screen

4.4   To change the output display from Hexadecimal to ASCII click on the "Radix" pull down menu. Figure 4.3 shows the location of this pull down menu.


Figure 4.3 – Sector Viewer Screen

5.0   Viewing Erasure Logs

The EE Array creates two versions of raw erasure logs detailing each erase that is conducted with the appliance. These two versions contain the same information, but are formatted differently. One version is a .csv file, the other a .txt file. Both are delineated in a way to allow for easy importing into spreadsheet programs.

The EE Array software also creates a PDF version of the erasure reports that can be supplied to a customer.

5.1   To view the purge logs generated by the application click on the "View Logs" button at the bottom of the main user interface screen. The location of this button is shown in Figure 5.1 below:
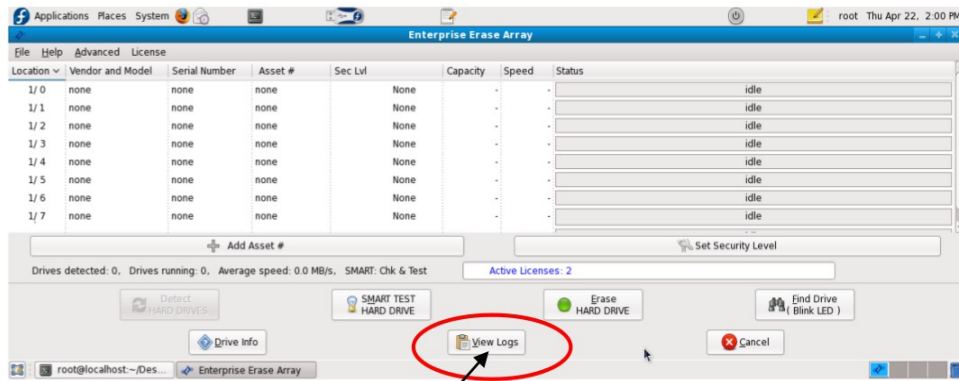
Figure 5.1 – Location of View Logs Button on Main User Interface Screen

6.0 Product Support

Tabernus has a support staff that will help you with any issues found on Enterprise Erase EE Array or any other Tabernus products. The support team can be reached in the following ways:

Via email:

support@tabernus.com

Support tickets can be created directly, and FAQ's & known *Solutions* can be found at:

support.tabernus.com
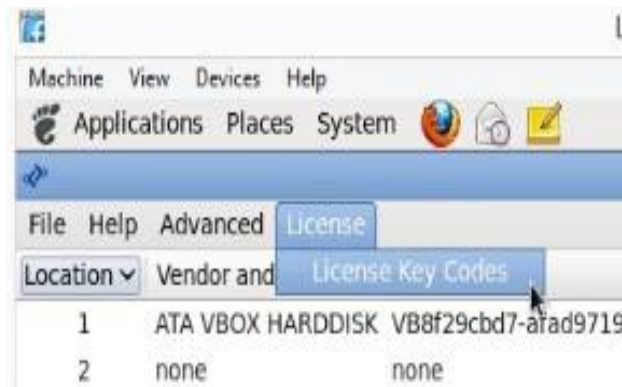
Via Phone:

+1 (512) 372 - 9823 (US)

Or

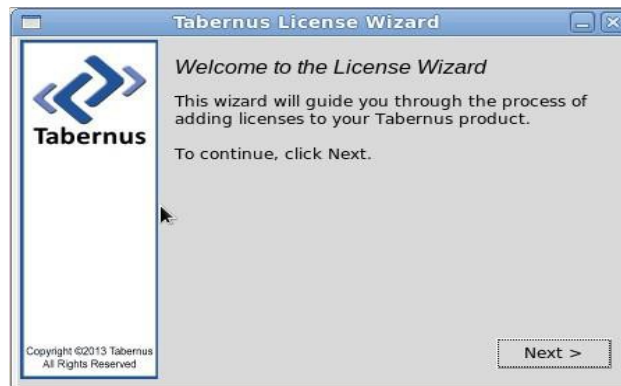**+44 (0) 1639 505 731 (UK)**

Addendum – Request Licenses

Key Based Licensing

1. Start the software and **Click License > License Key Codes.**

Figure 2.1: License Key Codes

2. The Tabernus License Wizard will open.

Figure 2.2 – Tabernus License Wizard

Addendum – Request Licenses (cont.)

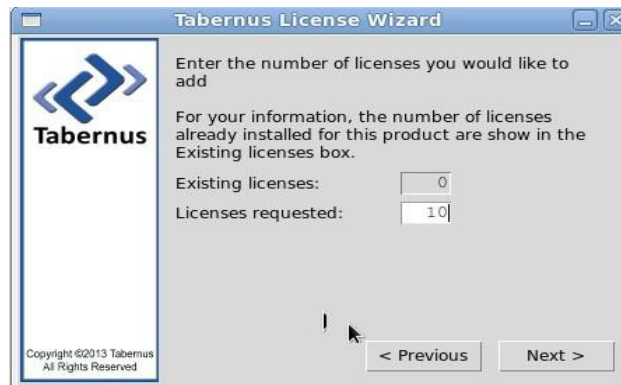3. Enter the quantity of licenses you require and **press NEXT**

Figure 2.3 – License Quantity Log

4. You will be presented with a Request Key

Figure 2.4 – Request Key Dialog

NOTE: Make a note of this key if you are not close to your PC you use to access the Customer Portal

Addendum – Request Licenses (cont.)

5. Log in to the Customer Portal (customer.tabernus.com) and **CLICK Request License by Key**.

Figure 2.5 – Customer Portal: Request License by Key

6. The Add License Request by key dialog will open.

Figure 2.6 – Add License Request by Key Dialog

7. Enter your Request Key into the License request Key box – use UPPERCASE letters and enter hyphens at this stage. Note that all "0" are zeroes.

8. Next, select a Software Revision – select the software revision you are licensing to ensure your records remain accurate.

Addendum – Request Licenses (cont.)

9. Unless you have it set up, ignore Group. You can, if you wish, enter a Memo:-noting the server you are licensing, for example:

Figure 2.7 – Enter Request Key and Other Details

10. You will be presented with a Response Key: make a note of this if you are not close to your Tabernus machine.

Figure 2.8 – Response Key

Addendum – Request Licenses (cont.)

11. Enter the Response Key into the Response Key box as shown (below). There is no need to enter hyphens or use uppercase characters at this stage.
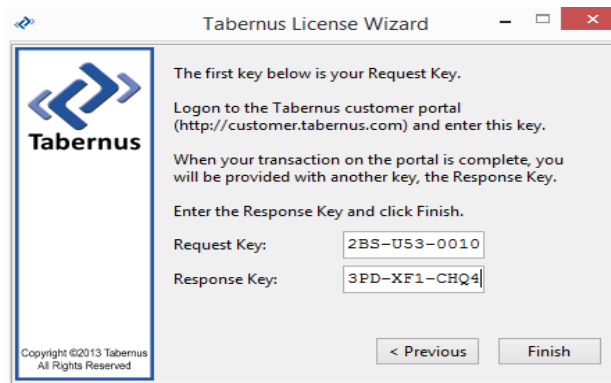

Figure 2.9 – Enter Response Key

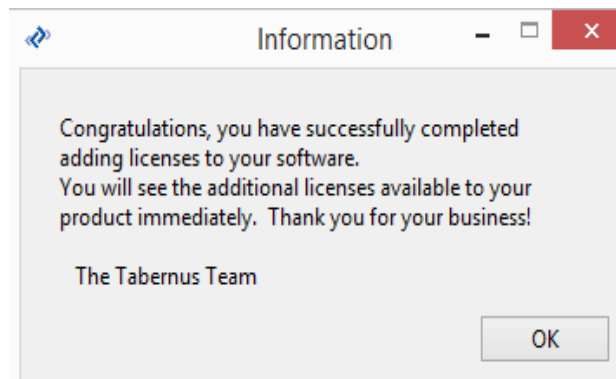12. **CLICK Finish**: A successful license transfer will produce the following dialog box

Figure 2.10 – Successful License Transfer
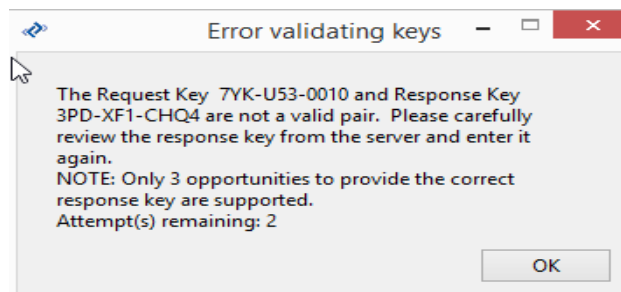
Addendum – Request Licenses (cont.)

Possible Error Conditions

1. If you do not select a software revision in the Add License Request by Key dialog box, the following message will appear.
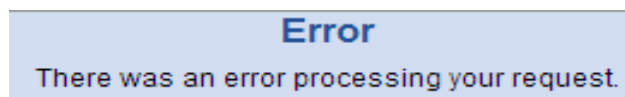
Error

You must choose a software to request licenses for.
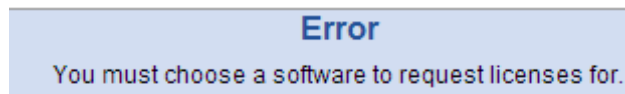
Figure 2.11 – Software Revision Selection Not Made

2. If you enter an incorrect Response Key, you will receive the following error message.

Error validating keys

The Request Key 7YK-U53-0010 and Response Key 3PD-XF1-CHQ4 are not a valid pair. Please carefully review the response key from the server and enter it again.
NOTE: Only 3 opportunities to provide the correct response key are supported.
Attempt(s) remaining: 2

OK

Figure 2.12 – Incorrect Response Key Entry Error

3. If you receive the (above) error, re-enter the Response Key, being careful to note whether "1's" are "I's" etc. You have three chances to enter the key before you have to start the procedure over anew

4. If you receive the following error, check whether you have entered the Request Key correctly, i.e., using uppercase letters and having entered the hyphens correctly. You will also receive this message if you request a quantity of licenses greater than that you have available on the portal

Error

There was an error processing your request.

Figure 2.13 – General Error Condition