Horizon® DXA System Computers
Reimaging Windows 10 / Installing APEX v5.6.x

Installation Instructions

MAN-09952 Revision 001

HOLOGIC®

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1.0 Preparation

Use the following procedure if you must reimage or restore a Windows 10 DXA computer onsite followed by installing the same version of APEX software and other ancillary software prior to the reimage to get system fully functional.

Caution:
All data on the hard drive is destroyed once the disk restoration process begins. Only qualified Hologic service engineers should perform this procedure. Be sure to archive and save to removable media any scan files on the system. Also, create a system backup and save custom report templates to removable media before beginning the restoration procedure.

1.1 Prepare for the upgrade by performing the following procedures on the APEX 5.6.x computer:

1. Log into the system as QDR.

2. Archive all unarchived scans on the legacy system.

3. Perform a System Backup to an external drive with at least 40 GB of memory.

4. Exit QDR without shutdown and close any other open applications visible in the taskbar at the bottom of the screen.

5. Copy all **the .Pxx., .Rxx**, and **.Axx** files from the **C:\QDR\Data** folder to a removable drive.

6. Copy the **C:\QDR\HxQuestionnaire** folder to a removable drive.

7. On the removable drive, rename the **HxQuestionnaire** folder to **sitename_HxQuestionnaire_Legacy**.

   You may need these files later in the installation procedure.

8. Locate the HL7 Client running in the background (if present in the legacy version) and take and save any screen captures of the configurations.

9. Make a copy of the **C:\Program Files\Hologic\Physician's Viewer\Options\DxReport** folder and save it to a removable drive.

10. On the removable drive, rename the DxReport folder to **sitename_DxReport_Legacy**.

    You may need files from this folder later in the installation procedure.

Note
Record the name of the template that is being used in the **Cover Letter Template** field.

Note
Remember that the path to the Win10 DX Report templates are now in the **...\Program Files x86\...** folder.

11. Log off as **QDR** and log into the system as **Field Service**.

12. If present in the legacy version, make a backup of the DxReport files.

    a. In APEX, go to the **Utilities > System Configuration > Report > DxReport** tab and select **Backup/Recover**.
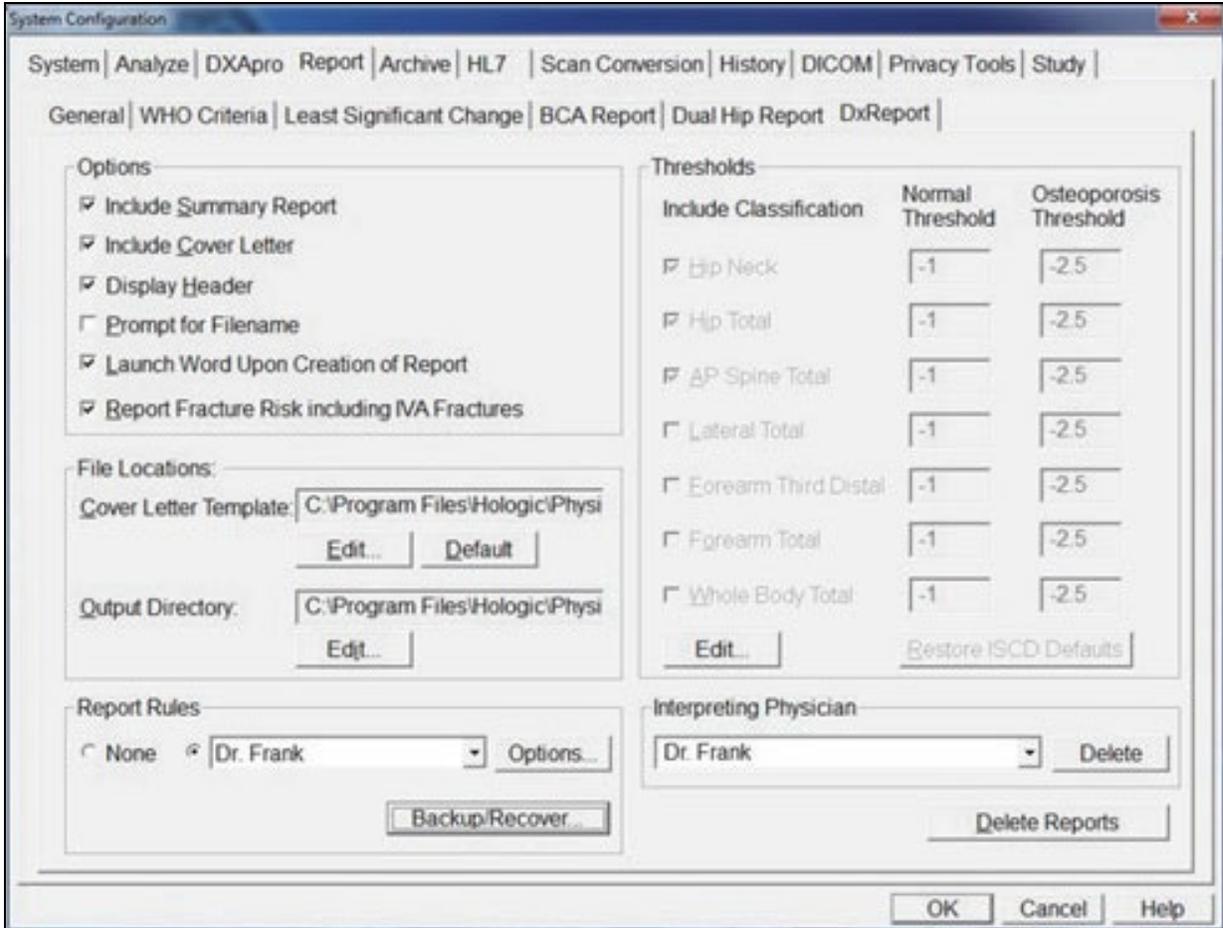
Figure 1: System Configuration Window, DxReport Tab

b. In the *System Configuration* window, in the Backup section select **Browse** and navigate to the removable media location and select **Start** to create the DxReport b
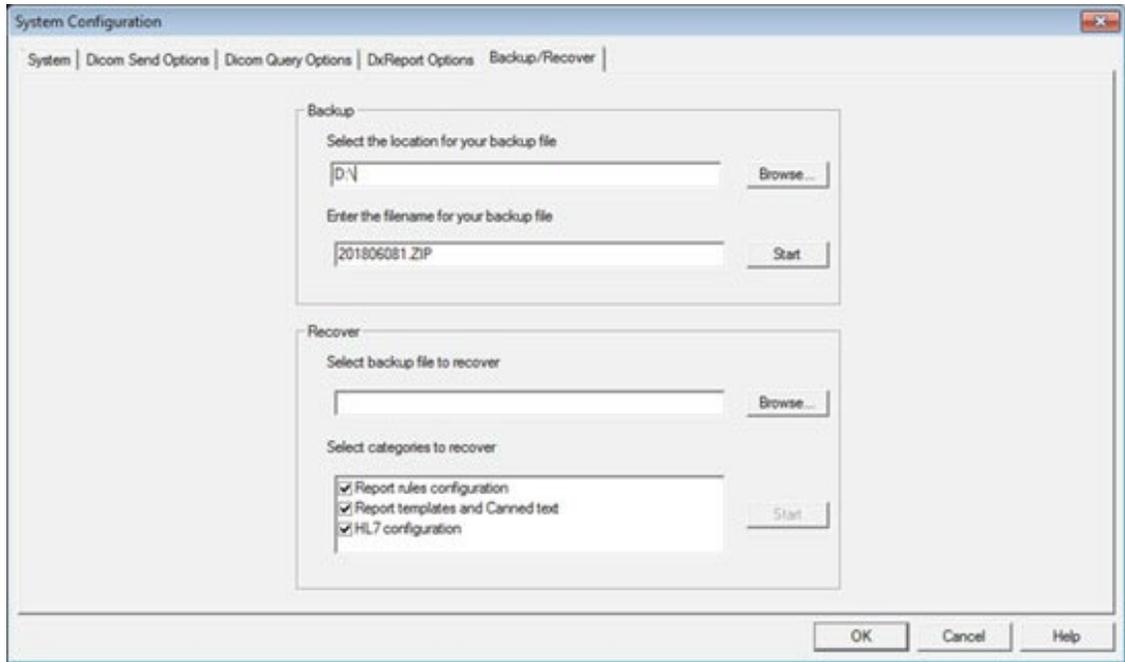
Figure 2: System Configuration Backup/Recover Options

Window

13. Exit QDR without shutdown and close any other open applications visible in the taskbar at the bottom of the window.

14. Record the legacy computer name and all network IP parameter settings.

1.2 Restore Windows 10

⚠️ **Caution:**
All data on the hard drive is destroyed once the disk restoration process begins. Only qualified Hologic service engineers should perform this procedure. Be sure to archive and save to removable media any scan files on the system. Also, create a system backup and save custom report templates to removable media before beginning the restoration procedure.

1.3 Boot Computer with Windows 10 Recovery Image Disk

1. Insert the Windows 10 Recovery Image Disk in the DVD drive.
2. Restart the system.
3. During the boot up process, press the **ESC** key to enter BIOS Setup.
4. Press **F10** for BIOS Setup.
5. In BIOS Setup, use the arrow keys or mouse and select **Advanced menu** at top of screen.
6. Arrow down, select **Boot Options**, and press **Enter** (or select **Boot Options** with the mouse).
7. Scroll down and ensure **UEFI Boot Order** is checked.
8. Scroll down and ensure **Legacy Boot Order** is unchecked.
9. Press **ESC** twice and select **YES** to save changes.
   The computer reboots.
10. During the boot up process, press **F9** to access the boot menu.
11. Select the **UEFI DVDRW** drive in the boot menu, and press **Enter**.

1.4   Start Disk Restore

1. Depending on the model computer you are restoring, at the *Clonezilla GNU Grub* screen, use the up and down arrow keys to select one of the following and press **Enter**.

   - For the HP G2 computer, select **clonezilla live with img**

     G2_Win10_Ghost_<date> HP600 (default settings, VGA 800x600)

   - For the HP G3 computer, select **clonezilla live with img**

     G3_Win10_Ghost_<date> HP600 (default settings, VGA 800x600)

   - For the HP G4/G5 computer, select **clonezilla live with img**

     G4_Win10_Ghost_<date> HP600 (default settings, VGA 800x600)

   The message …the module is not found, overlays missing… is displayed. (This message is normal.)

2. At the *Are you sure you want to continue Y/N* prompt, select **Y** and press **Enter**.

   Be patient, as it may take a few minutes for this prompt in step 2 to display.

3. At the prompt for a second confirmation, select **Y** and press **Enter**.

   The restore image process starts.

   The *Clonezilla GNU GRUB Operation Progress* screen is displayed and shows the operation progress until completion. The restore image process takes approximately 30 minutes to complete.

4. When the *Choose Mode* screen is displayed, remove the disk from the DVD drive and use the arrow keys and select **Power Off** and then press **Enter**.

5. After the computer has completely shut down and powered off, reboot the system.

   The system should reboot normally.

Note

If the system boots up and the message *Boot Device Not Found* is displayed, then complete the following steps; otherwise continue with *1.5 Set Up Windows*.

   a. Restart the system.

   b. During the boot up process, press the **ESC** key to enter **BIOS Setup** and Press **F10** for **BIOS Setup**.

   c. Use the arrow keys or mouse to select the **Advanced** menu at top of screen.

   d. Arrow down, select **Boot Options**, and select **Enter** (or select **Boot Options** with the mouse).

   e. Scroll down and ensure **UEFI Boot Order** is **unchecked**.

   f. Scroll down and ensure **Legacy Boot Order** is **checked**.

   g. Select **ESC** twice and select **YES** to save changes.

      The computer reboots.

1.5   Set Up Windows

To set up Windows on the DXA system computer:

1. Set the appropriate default settings for the **country**, **language**, **keyboard layout**, and **time zone** for your location, and select **Next**.

2. Select **Accept** to accept the license terms and proceed to the next window.

3. If the *connections* window is displayed, select **Unidentified Network** to connect to the network, or skip this step to connect to the network later.

4. Select **customize** in the next window, which is followed by three windows with customization settings to select on each:

    a. Turn **off** all settings on the first window which lists personalization and location settings and select **Next** to proceed.

    b. Turn **off** all settings on the second window which lists connectivity and error reporting settings and select **Next** to proceed.

    c. Turn **off** all settings on the third window which lists browser, protection, and update settings and select **Next** to proceed.

5. Create a new user account named **Admin** on the computer:

    a. Enter **Admin** for the **username**.

    b. Enter **password** for the password.

    c. Enter **Hologic** in the hint field and select **Next**.

6. Select **Log Off**.

7. Log into the system as **Field Service**.

8. Select **Settings** and select **System**.

9. In the *System* window, select **Notifications & actions**.

10. Turn off the option **Get notifications from apps and other senders**.

11. In the *Settings* window, select **Open > Activation, (**for Windows 10 activation).

12. Select **Change product key** to enter a Windows 10 Certificate of Authenticity (COA) product key that is found on a sticker on top of the computer case.

13. An internet connection is needed for Windows activation.

    If you do not have an Internet connection, you need to either:

    • Obtain a Wireless USB network interface device and use your iPhone as a hotspot.

    • Bring the computer to an Internet-accessible location.

14. Close the **Settings** window.

2.0　　Install APEX 5.6.x Software

2.1　Install CommCon PCB and Drivers

1. With power off, reinstall the Hologic CommCon PCB if it was removed.

2. Reboot the system.

3. Log into the system as **Field Service**.

4. Insert the APEX Application DVD in the DVD drive.

5. On the keyboard, press the **Windows logo** and the **pause** key together to open the *System* window and select **Device Manager**.

6. When prompted *Do you want to allow the app to make changes?*, select **Yes.**

7. Right-click on **Other devices > Other PCI Bridge**, and select **Properties**.

8. Select the **Drive** tab and select **Update Driver**.

9. Select **Browse My Computer** and select **Browse**.

10. Navigate to the DVD drive and then to **Apex System Software > Device** folder and select **OK**.

11. Ensure that the **include subfolders** checkbox is checked and select **Next**.

12. When the *Windows Security* popup window is displayed, select **Install this software anyway**.

13. When the Hologic CommonCon PCB is recognized by the Windows, select **Close**.

14. Turn off the computer.

2.2　Install SQL Server 2012 Express Software

Install the SQL Server 2012 Express Software:

1. Log into the system as **Field Service**.

2. Browse the APEX application DVD, double-click on the **SQL Server 2012 Express** folder.

3. Right-click **Setup.bat** and select **Run as administrator**.

Note

After the installation program begins, the progress of the SQL Server 2012 Express installation opens in a command window. A message opens when the installation has completed. The installation may take several minutes to complete, so please be patient.

4. Reboot the computer.

2.3   Install HP Printer Driver (if Required)

To install the HP Printer driver:

1.   Log into the system as **Field Service**.

2.   Install the printer driver only.

     No other part of the printer applications should be installed.

3.   Reboot the computer.

2.4   Configure the Network Connection

Configure the network connection:

1.   Log into the system as **Field Service**.

2.   Input the **network** configuration settings noted in Step 13 in *Section 1.1* before re-imaging computer.

3.   Reboot the computer.

2.5   Install MS Word in APEX Reporting Engine for DXReport

Install MS Word 2016:

1.   Log into the system as **QDR**.

2.   Use the **APEX Reporting Engine for DXReport** disk to install the MS Word program.

3.   Use an Internet connection to activate the product key which is listed on a sticker on the APEX Reporting Engine CD sleeve.

4.   If you do not have an Internet connection, obtain a Wireless USB network interface device and use your iPhone as a hotspot, or alternatively, bring the computer to an Internet-accessible location.

5.   Reboot the computer.

6. To configure the MS Word 2016 trust center settings:

   a. Open **MS Word 2016**.

   b. Select **File**, and then select **Options** from the Sidebar.

      The Word Options dialog opens.

   c. Select **Trust Center**.

   d. Select **Trust Center Settings**.

      The Trust Center dialog opens.

   e. From the Macro Settings section, select the **Disable all macros except digitally signed macros** radio button.

   f. Select **Trusted Locations** in the sidebar.

   g. Verify that **Program Files (x86)\Hologic** is listed as a trusted location under User Locations.

      If it is not, then:

      (1) Select **Add new location**.

      (2) Browse to and select **Program Files (x86)\Hologic**.

Note

The Hologic folder does not exist until APEX is installed. Set this location after APEX installation.

      (3) Mark the **Subfolders of this location are also trusted** checkbox and select **OK**.

   h. Select **Add new location**.

   i. Browse to and **select Program Files (x86)\Microsoft Office\Office16\Startup** or: **Program Files (x86)\Microsoft Office\root\Office16\Startup**.

      The correct path is where the installer copied the HologicCT.dot, HologicHX.dot, and HologicHL7.dot macro files.

   j. Select the checkbox **Subfolders of this location are also trusted** and select **OK** and then select **OK**.

2.6   Install APEX 5.6.x Software

To install the APEX 5.6.x software:

1. Log into the system as **QDR**.

2. Go to the APEX application DVD in the drive and locate Apex System Software folder.

3. Double-click the folder.

4. Double-click **Setup.exe**.

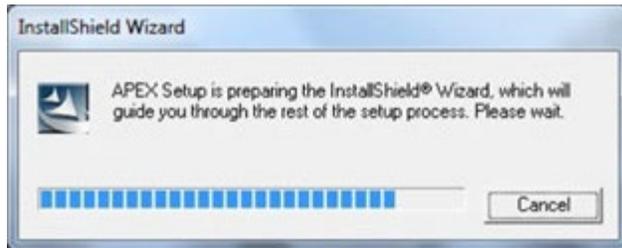   The installation program begins, and the *InstallShield Wizard* window opens.

Figure 3: InstallShield Wizard Window
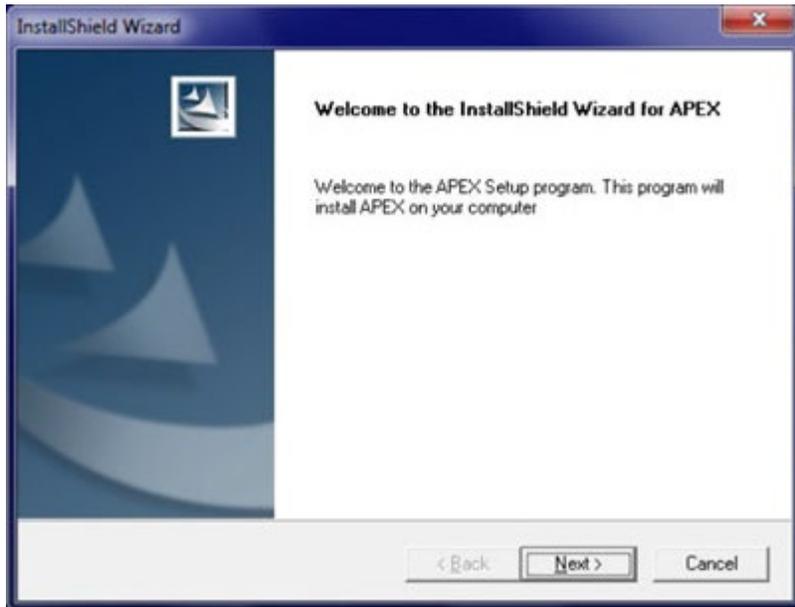
5. When the *Welcome* window opens, select **Next**.

Figure 4: Welcome Window

6. When the *License Agreement* window opens, select **Yes** to accept the terms of the agreement.
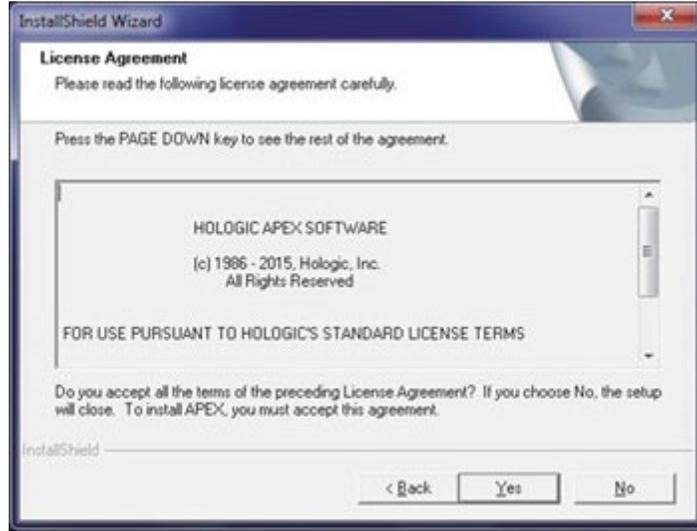
Figure 5: License Agreement Window

7. At the *Select Apex Machine Type* window, select the appropriate APEX machine type system (model) and select **Next**.
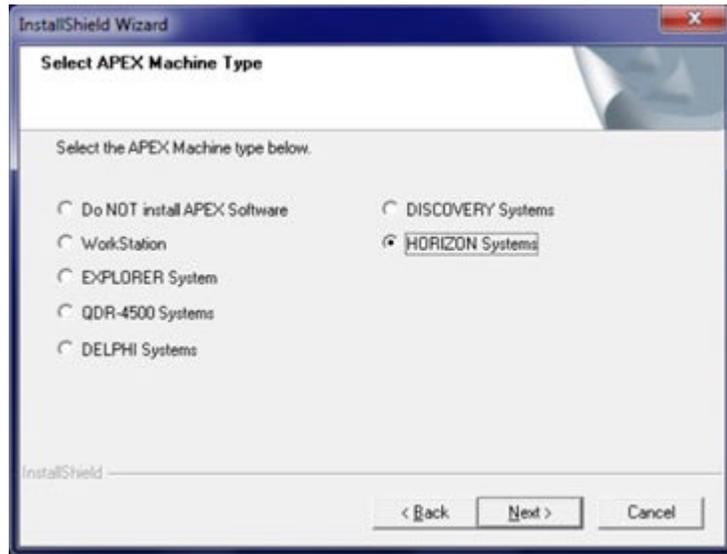

Figure 6: Select APEX Machine Type Window

8. When the Serial *Number* window opens, enter the system Serial # and Install Key included in the options form in the upgrade kit and then select **Next**.

Figure 7: Serial Number Window

9. When the *Choose Destination Location* window opens (not shown), accept the C:\QDR folder as the destination location, and then select **Next.**

   A progress bar is displayed while the program files are being installed.

10. The InstallShield *Wizard Complete* window opens with the **Yes, I want to restart my computer now** option selected. Remove the APEX applications DVD from the DVD drive and select **Finish**.

Figure 8: InstallShield Wizard Complete Window

   The system reboots.

11. Log into the system as QDR.

12. Navigate to the APEX Task Bar and select **Help > About APEX**.

13. When the About *Hologic APEX Software* window opens, verify that the correct installed version is in the Version box and select **OK**.
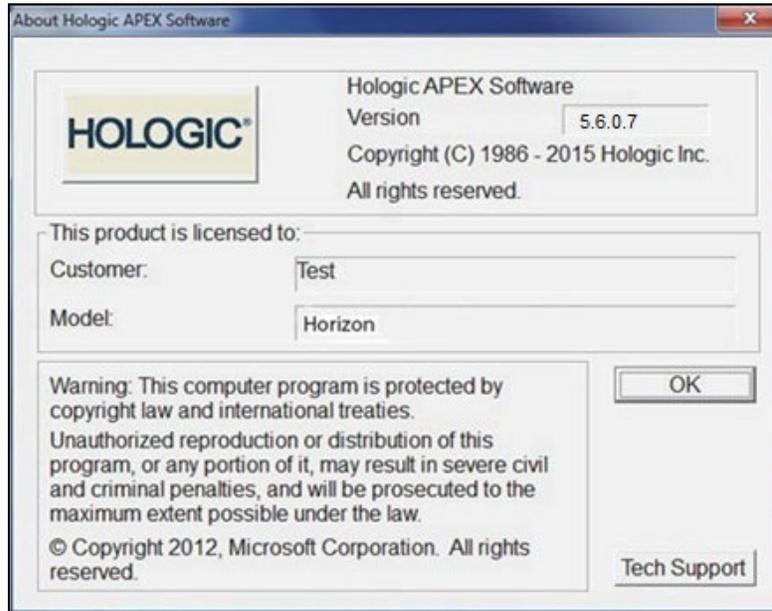

Figure 9: About Hologic APEX Software Window

14. Create a System Backup.

    Keep this backup aside for a blank database restore point if ever needed.

15. Enter any APEX Option Keys, for example, DICOM, Worklist…etc. included in the options form in the upgrade kit, then exit APEX without shutdown.

16. Copy all the **.Pxx**, **.Rxx**, and **.Axx** files from the removable drive to the **C:\QDR\Data** folder.

17. Insert the Apex Service Dongle (TLS-03999), launch **APEX**, go to **Backup > System Recover** and recover the entire system backup created in Step 2 of *Section 1.1 Prepare for the upgrade by performing the following procedures on the APEX 5.6.x computer:*

18. After the reconcile process completes, select **Close**.

19. Exit APEX without Shutdown.

20. Install any APEX options such as FRAX or HL7 Client if applicable.

21. Restore any custom templates or questionnaires.

22. Test system by performing daily QC and BCA QC (if applicable) and all operations of customer workflow.

⚠ **Caution:**
You may have issues printing before installation of the Windows 10 OS patches. The patch installation resolves these issues.

2.7   Install the Initial Windows 10 OS Patches

After completing a Windows 10 software only upgrade, the Windows 10 recovery utility does not include the appropriate MS Windows 10 OS patches. It is required that you update the system with these required patches.

2.8   Prerequisites

The Win10 OS patches and updater utility are compressed into an ISO file and can be obtained from the Hologic Software Delivery Portal. You need to have an external USB flash drive with at least 40 Gb of free space. The ISO file is very large, and it needs to be downloaded prior to a site visit.

> **Note**
>
> You are not required to perform these updates monthly. You should however use the most recently released patches when performing the SW only upgrade or if the need arises to re-image a Win10 computer on-site. Computers received from the factory with Win10 already installed, have the latest validated Win10 OS patches.

2.9   Complete the OS Update

Complete the Windows 10 OS update:

1. Download the WIN 10 OS patch file downloaded from the Hologic Software Delivery Portal. The file has a .ZIP file extension.

2. Right-click the .ZIP file and select extract all. This creates a folder with the same name as the .ZIP file and in that folder is the .ISO file.

3. Once you have the **SFW-xxxxx.ISO file** (SFW number changes monthly) downloaded to the USB flash drive, right-click it, hover over **7-Zip**, and select **Extract Files**.

    This unpacks the updater utility and the OS patches. Do not copy these files to the DXA computer.

4. Log into the system as **Field Service**.

5. Exit APEX without shutdown.

6. On the desktop, start the Task Manager, and in the **Startup** tab, select **QDR Main Application** and select **Disable**.

7. Navigate to the ISO extracted files folder, right-click the **Hologic.Installation.TopLevelGUI.e***xe* file, and select **Run as Administrator** to begin the installation

8. If prompted, select **Yes** to allow execution.

9. When the *Installation Task dialog* box opens, ensure that all checkboxes are checked under **Installation Tasks** and that **Automatic Logon after Restart** is enabled.
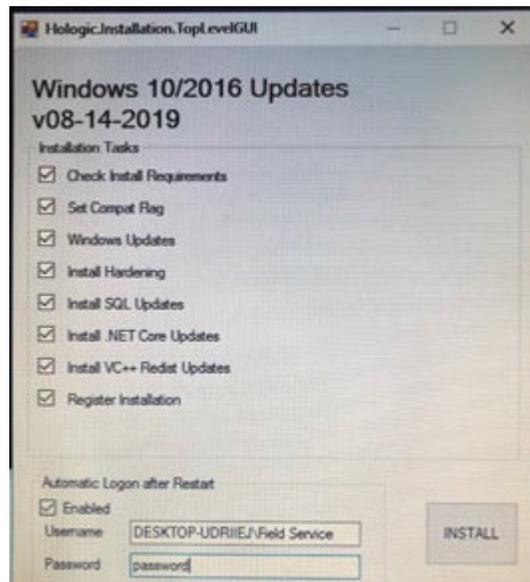

Figure 10: Installation Task Dialog Box

10. Enter the username and the password for the current logged in user and select **INSTALL**.

    During the installation, the system reboots a few times. This allows the system to log back in without user intervention.

11. Allow the installation to complete.

    This could take up to **2 hours** depending on how many updates are required.

> **Note**
> If at any time a failure occurs during the installation, select **OK** to acknowledge the message that is displayed, and close any window that may have remained open. Start the procedure over from Step 6 of *Section 2.9 Complete the OS Update*. The installation resumes where it left off.

12. After the *Installation Complete* prompt confirms success, select **OK**.

13. Open **Control Panel**, select **Programs and Features**, select the link on the left side labeled **View Installed Updates**, and confirm by date that the updates are installed.

14. Start the **Task Manager** and in the Startup tab, select **QDR Main Application**, and select **Enable**.

15. Reboot the computer.

3.0 Disable Windows 10 OS Processes and Services

3.1 Disable the Microsoft Compatibility Appraiser

1. Log into the system as **Field Service.**

2. At the *Search Windows* prompt, enter **TASKSCHD** to open the **Task Scheduler**.

3. Select **Task Scheduler.**
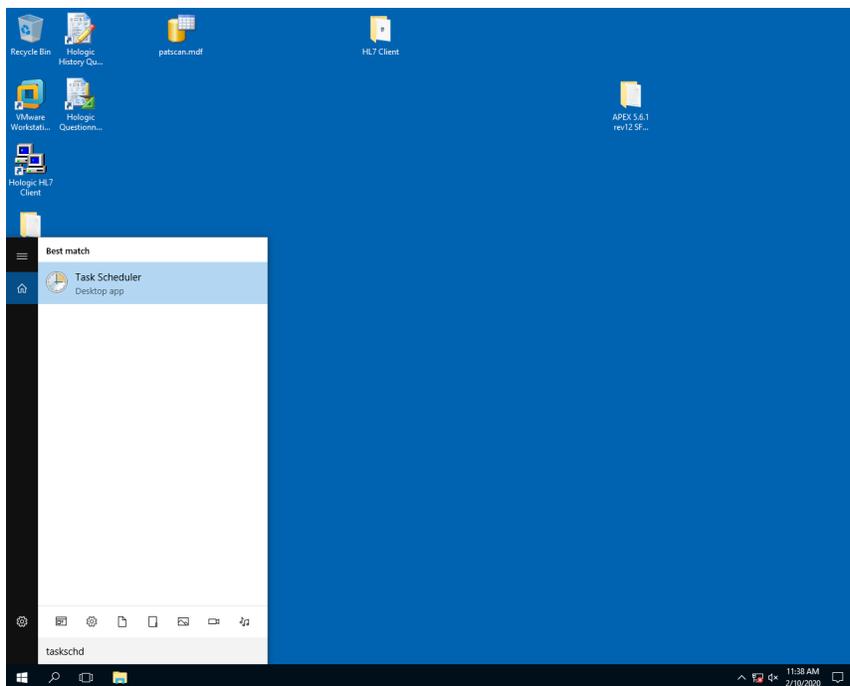
Figure 11: Task Scheduler in Results Window

4. Expand **Task Scheduler Library > Microsoft > Windows** and select **Application Experience**.
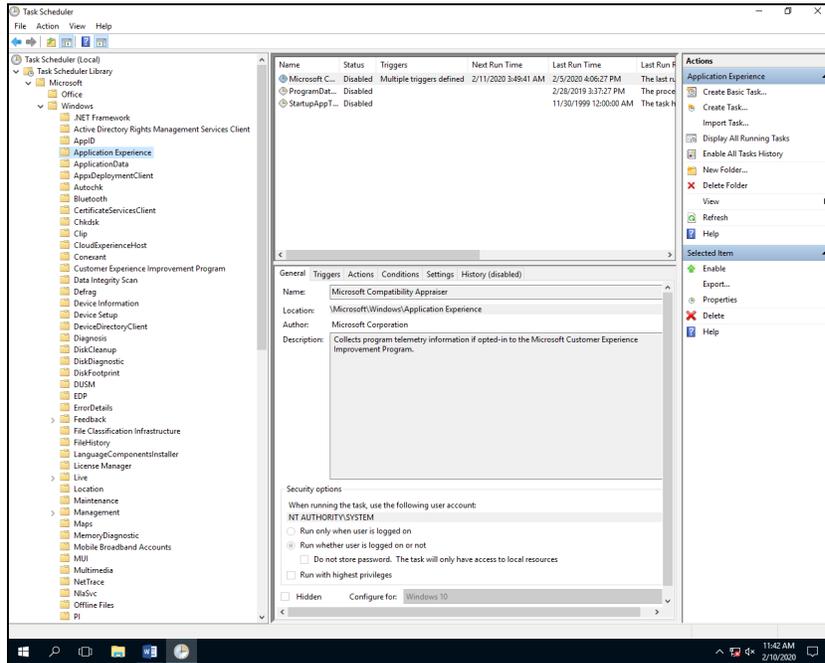

Figure 12: Select Application in the Task Scheduler Window

5. In the top center section, right-click the **Microsoft Compatibility Appraiser** and select **END.**
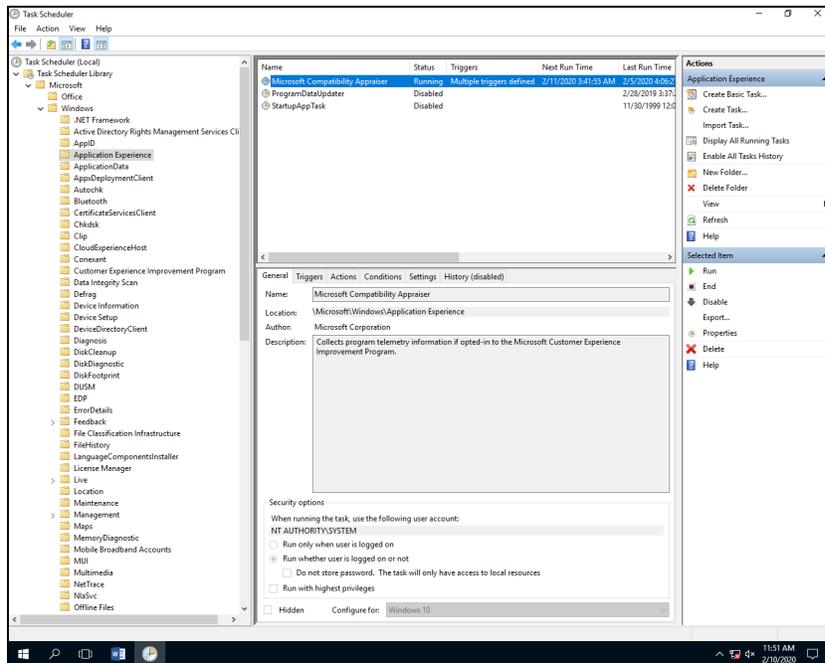
Figure 13: Microsoft Compatibility Appraiser in the Task Scheduler Window

6. Right-click the **Microsoft Compatibility Appraiser** again and select **Disable.**
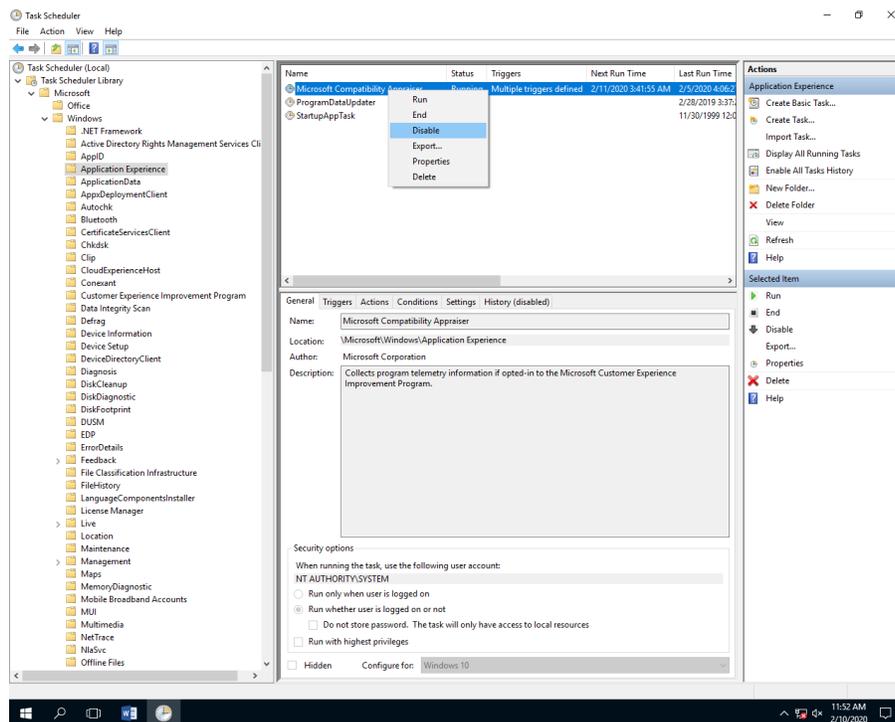
Figure 14: Disable Option in the Microsoft Compatibility Appraiser

7. Close the **Task Scheduler** and reboot the computer.

3.2   Disable MS Word Hardware Graphics Acceleration

1. On the desktop, launch MS Word 2016 and go into **File > Options**.

2. In the left panel, select **Advanced**.

3. Scroll down to the Display section and put a check in the checkbox labeled **Disable hardware graphics acceleration** and select **OK** and close **Word Options**.

4. Perform these steps for all the Windows logins on the computer.
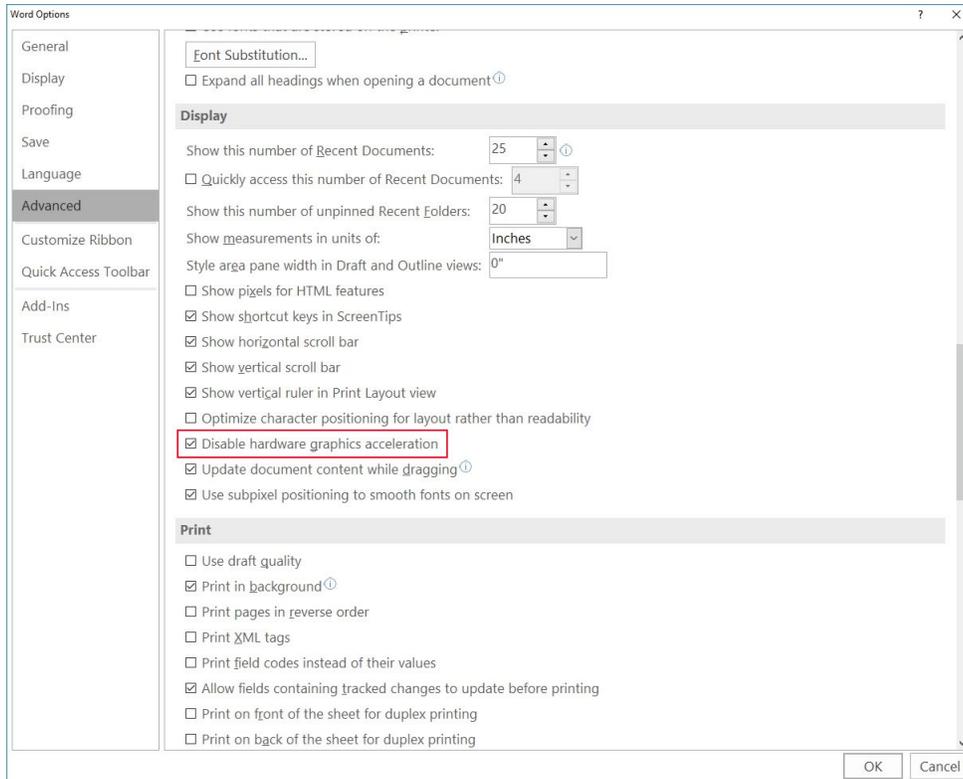
Figure 15: Word Options

3.3   Disable Windows Defender

1. Log into the system as **Field Service**.

2. At the *Search Windows* prompt, enter **GPEDIT, to op**en the **Edit Group policy**.
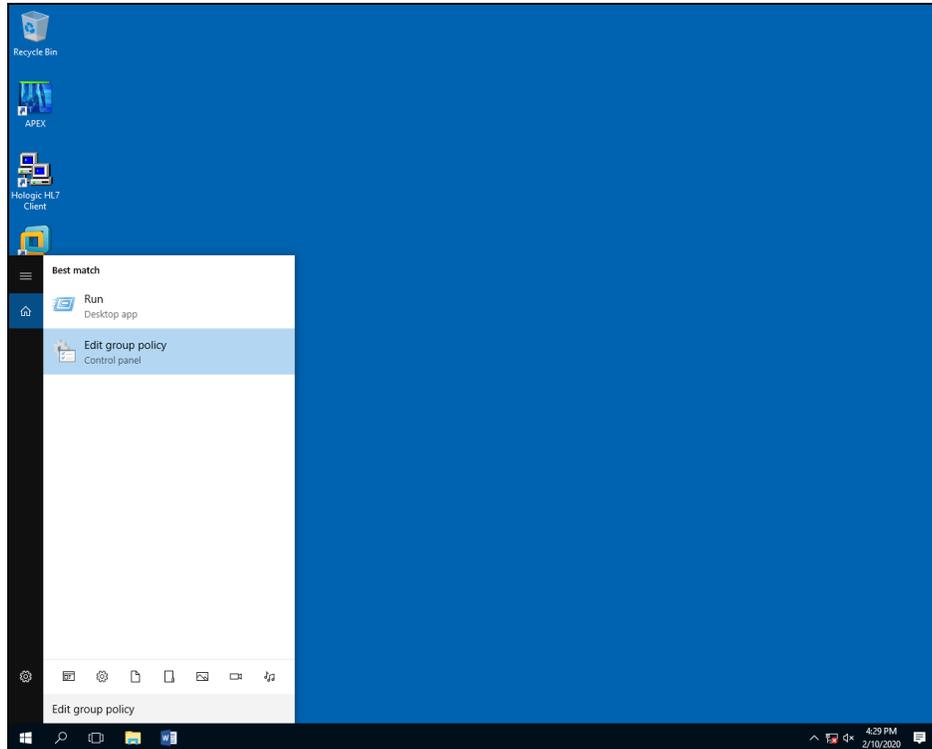
Figure 16: Edit Group Policy

3. In the left window panel, expand **Computer Configuration > Administrative Templates > Windows Components** and select **Windows Defender**.

4. In the *Windows Defender* window double-click **Turn off Windows Defender**.
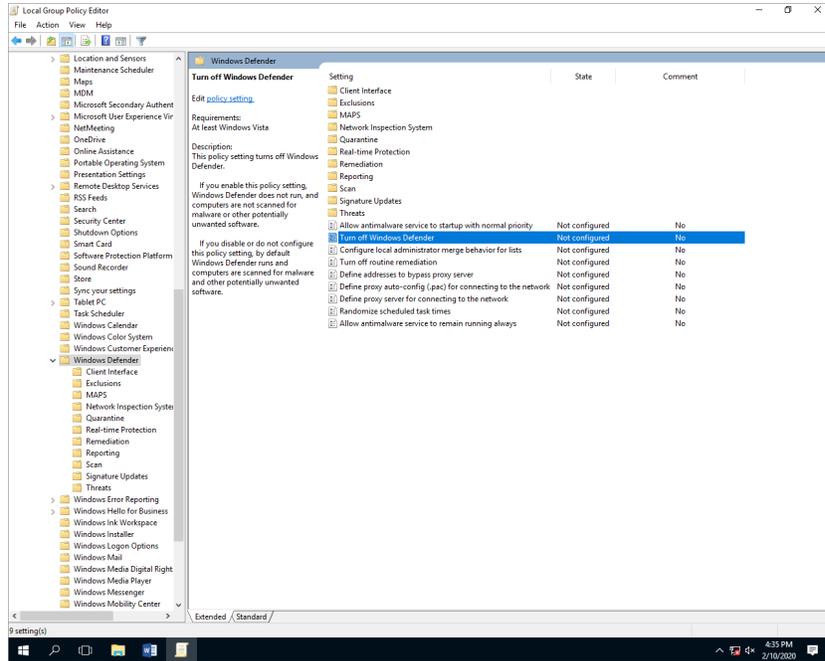
Figure 17: Turn off Windows Defender

5. In the *Turn Off Windows Defender* window, select **Enabled** then select **Apply** and then **OK**.
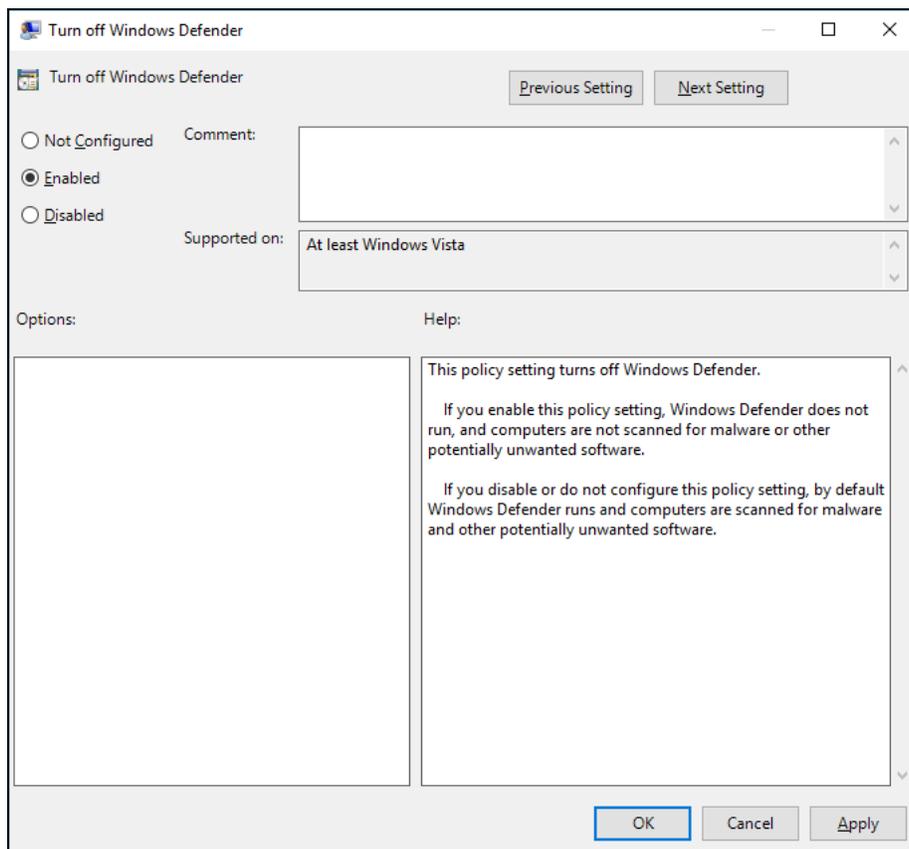
Figure 18: Turn off Windows Defender Window

6. Reboot the computer.

3.4   Disable Windows Updates

Note

For Windows Updates to be installed, this service must be enabled, then disabled after any updates are completed.

1. Log into the system as **Field Service.**

2. Right-click the **start menu** icon and go to **Control Panel > Administrative Tools > Services**.

3. Scroll down and double-click **Windows Update**.

4. In the *Windows Update Properties (local computer)* window **Startup type**, select **Disabled**.
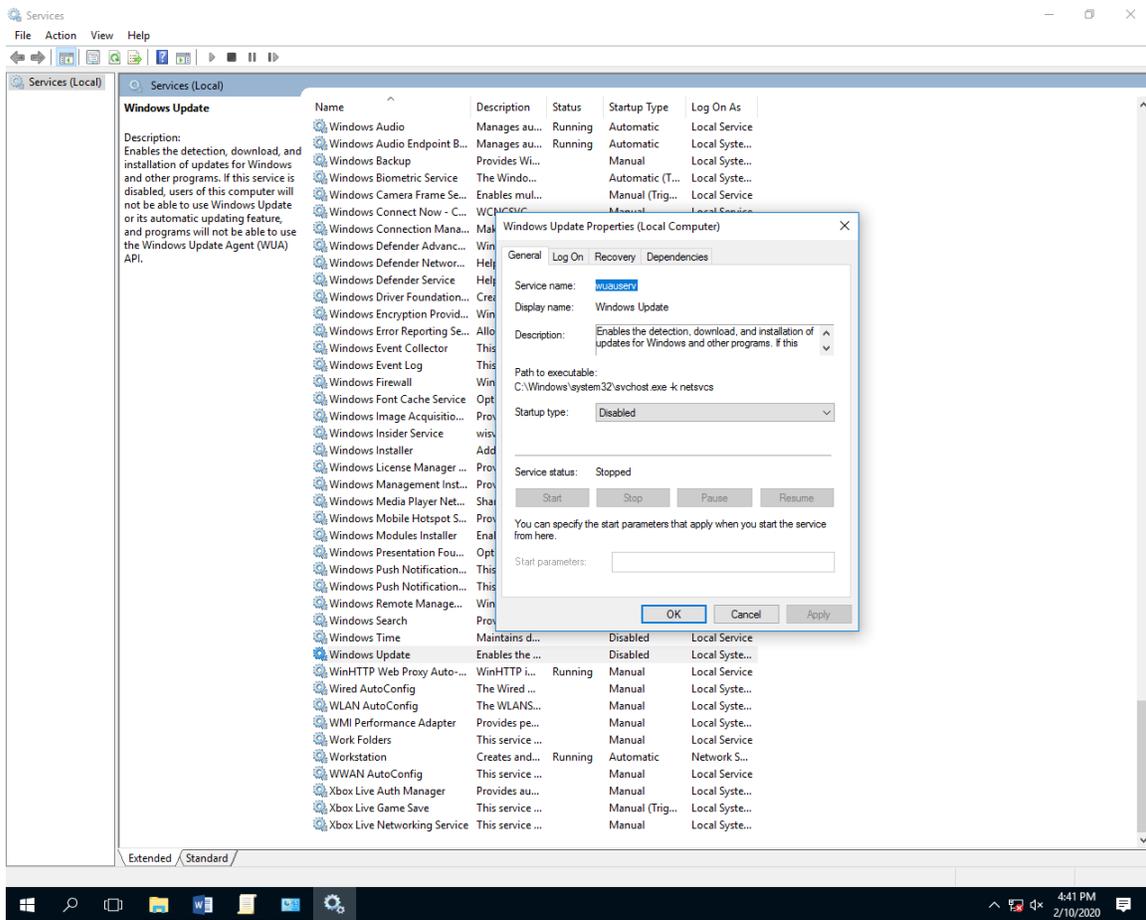
Figure 19: Disabled option in the Windows Update Properties (Local Computer) Window

5. Reboot computer.

⚠️ **Caution:**

Installing the Windows 10 OS update reverts the MS Compatibility Checker to "Running" if it was previously disabled following "TB-01650 Disabling Windows 10 OS Processes". All settings performed in TB-01650 should be checked after Windows 10 OS updates are performed.

3.5   For HP ProDesk 600 G2/G3 computers only

Follow these steps to verify the NIC driver version:

1.   Log into the system as **Field Service**.

2.   Exit APEX without Shutdown.

3.   At the desktop right-click the **Start Menu** button and select **Control Panel.**
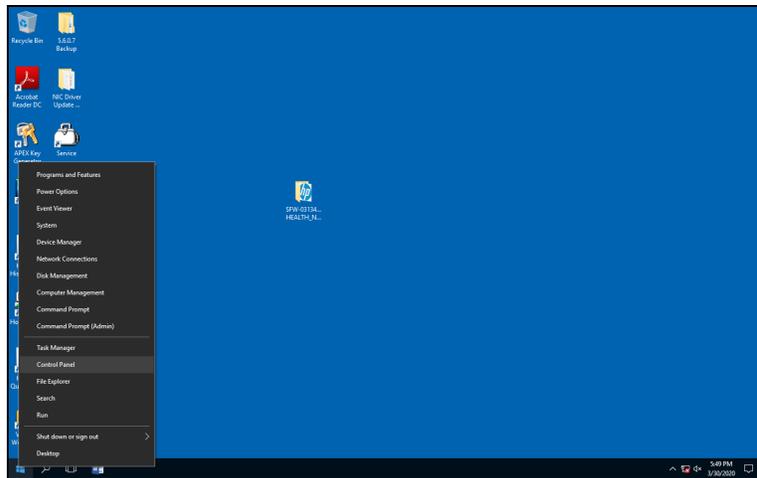
Figure 20: Start menu

4.   At the *All Control Panel Items*, select **System**.
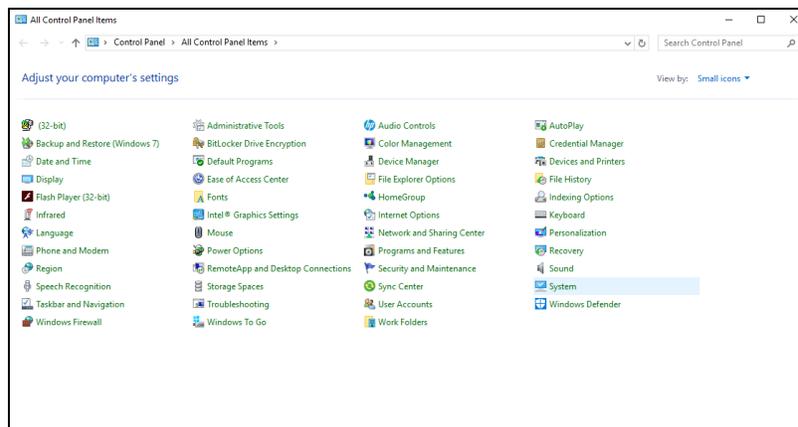
Figure 21: All Control Panel Items window

5. In the *System* window, select **Device Manager**.
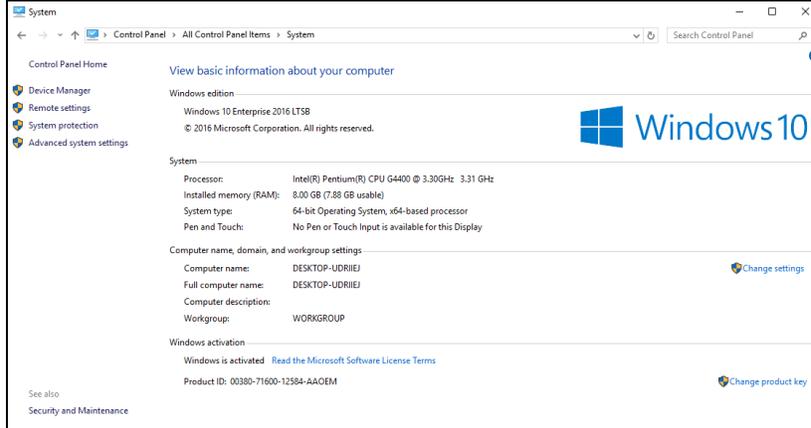
Figure 22: System Window

6. In the *Device Manager* window expand **Network Adapters**.
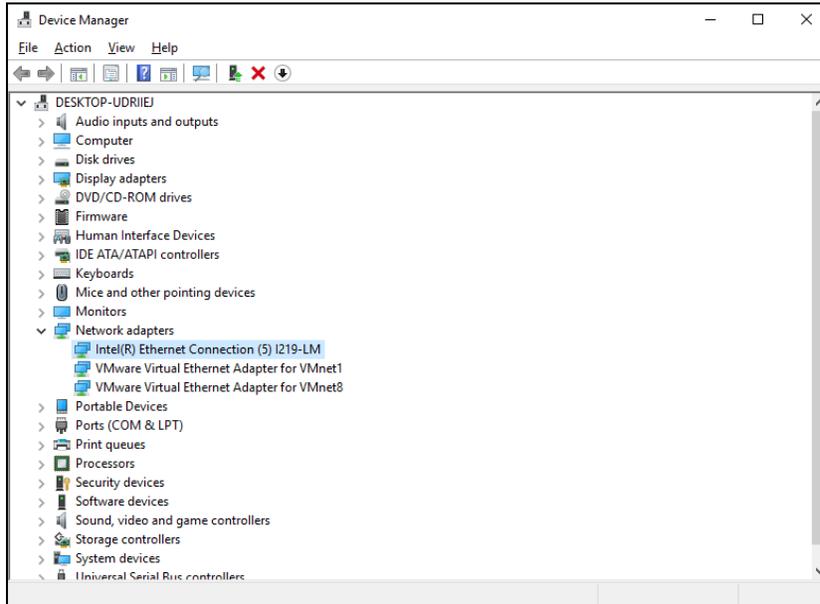
Figure 23: Network Adapters in the Device Manager Window

7. Right-click on **Intel Ethernet Connection (<n>) 1219-LM** (where <n> could be any number) and select **Properties**.
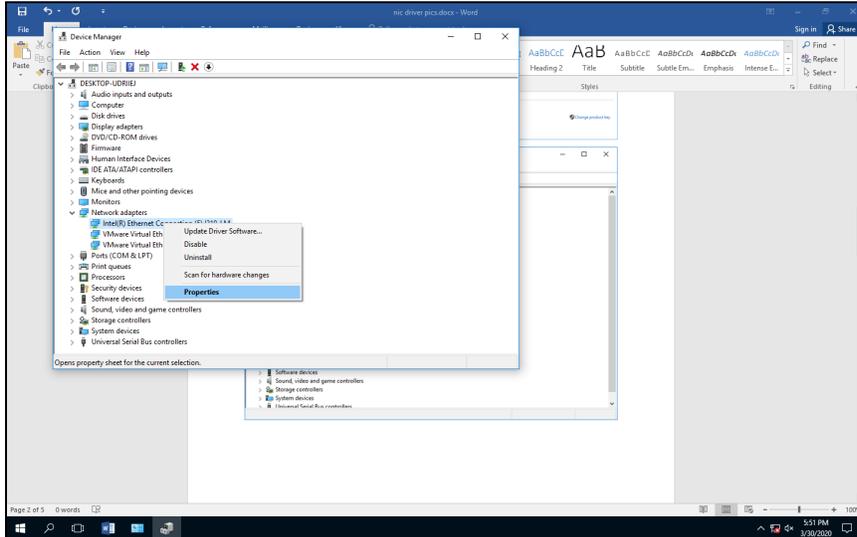

Figure 24: Intel Ethernet Connection Properties

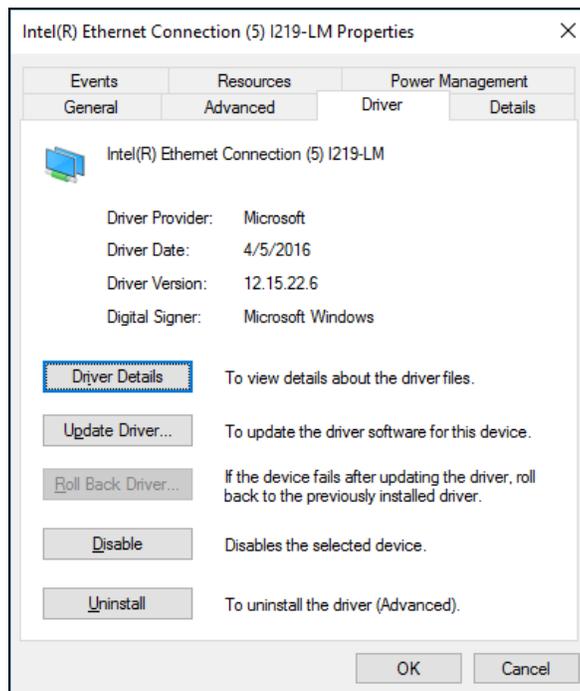8. In the *Intel Ethernet Connection Properties* window, select the **Driver** tab.

Figure 25: Inter Ethernet Connection Properties Window

9. If the Driver Version of NIC driver is less than **12.17.x.x** follow the Installation instructions below to update the driver. Otherwise no further action is needed, and this procedure is completed.

3.6   Install NIC Driver

1. At the Hologic Software Delivery Portal,
   https://hologic.sharepoint.com/teams/softwaredeliveryportal/SitePages/Home.aspx,
   obtain a copy of the NIC driver SKELETAL HEALTH_NIC DRIVER FOR G2 AND
   G3_WIN10 (SFW-03134).

2. Save to folder of your choice to your laptop (not the DXA computer).

Figure 26: Skeletal Health NIC Driver Version

The download instructions are emailed to you.

3. At the *Hologic Software Delivery Portal, HUB, User Guide* window, select the **link** or **Download** button.
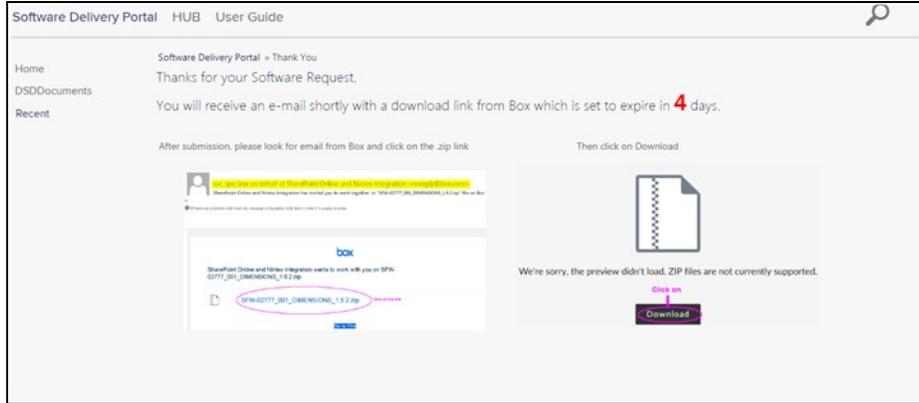
    The window advances to BOX.

Figure 27: Hologic Software Delivery Portal HUB User Guide Window

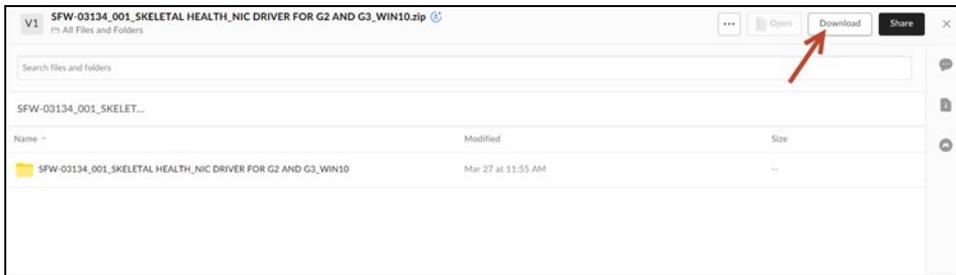4. Log into BOX and select the **Download** button in upper right.

Figure 28: Skeletal Health NIC Driver download

5. At the bottom of the window, select the **dropdown** arrow next to Save to display to open save options.
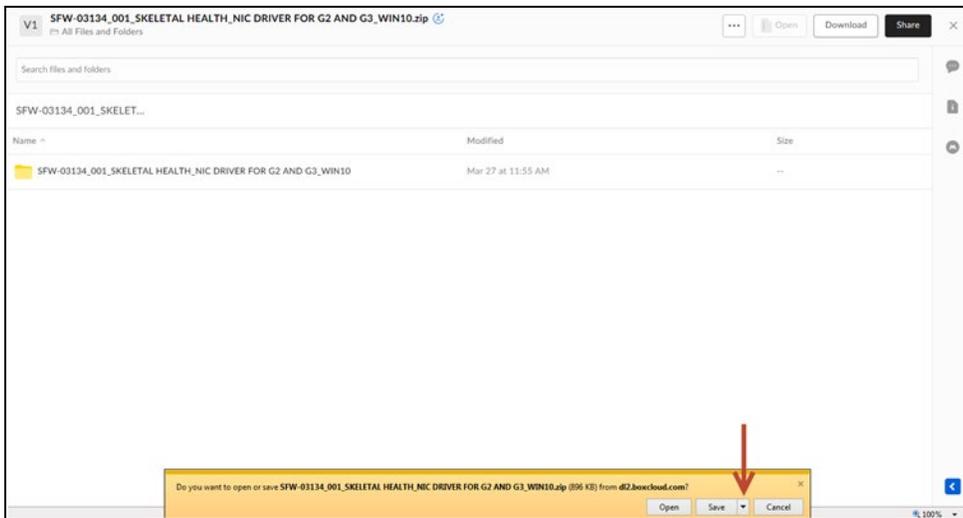

Figure 29: Save to Display

600 Technology Drive, Newark, DE 19702 USA 1.800.447.1856

6. Select the **Save as** option and select the destination of your choice on your laptop.
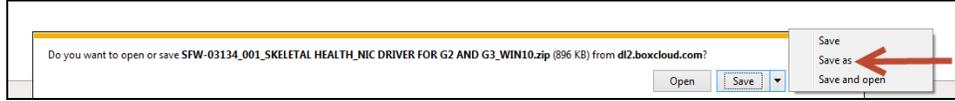

Figure 30: Save As Option Window

The download file is zip file "SFW-03134_001_SKELETAL HEALTH_NIC DRIVER FOR G2 AND G3_WIN10.zip".

7. Navigate to the folder where you saved the zip file and right-click the file **"SFW-03134_001_SKELETAL HEALTH_NIC DRIVER FOR G2 AND G3_WIN10.zip" and** hover your cursor over 7-zip and then select **Extract Here.**
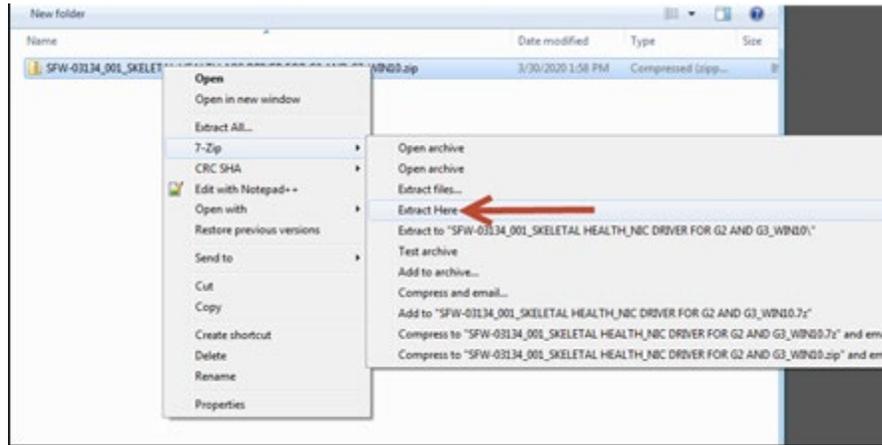

Figure 31: Extracting Files

This creates a folder with the same name as the zip file "SFW-03134_001_SKELETAL HEALTH_NIC DRIVER FOR G2 AND G3_WIN10".

8. Copy this folder to your USB flash drive.

9. On the DXA computer, log into the system as **Field Service**, and exit APEX without shutdown.

10. Insert the USB flash drive and copy the driver folder "SFW-03134_001_SKELETAL HEALTH_NIC DRIVER FOR G2 AND G3_WIN10" to the DXA computer desktop.

11. Open the folder **SFW-03134_001_SKELETAL HEALTH_NIC DRIVER FOR G2 AND G3_WIN10** and right-click the driver file **sp99053.exe** and select **Run as Administrator.**

12. When the User Access Control dialog opens (not shown), select **Next**.

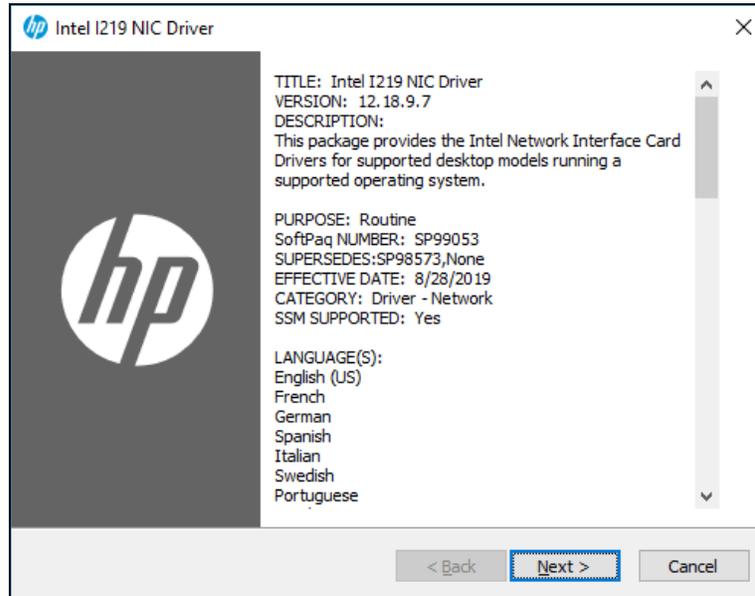13. At the *Intel I219 NIC Driver* window select **Next**.

Figure 32: Intel I2I9 NIC Driver Window

14. At the *License Agreement* window, select **I accept the terms in the license agreement** and select **Next**.
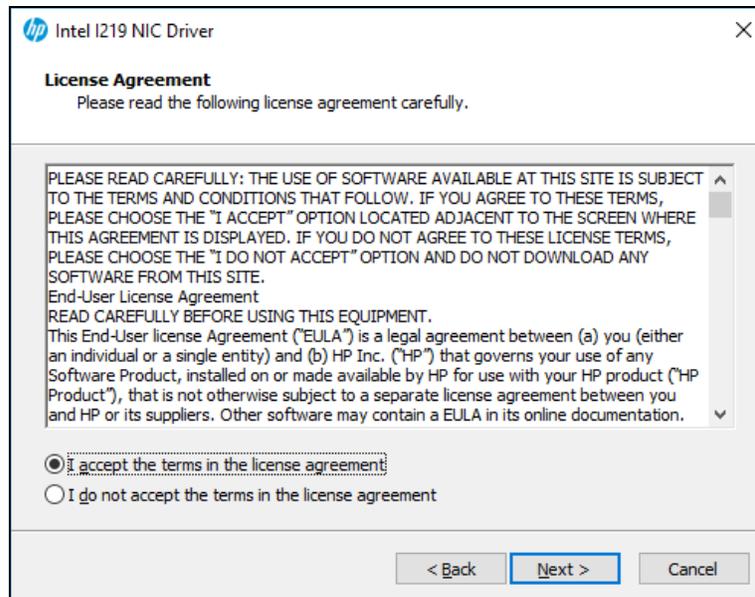

Figure 33: License Agreement Window

15. At the *Location to Save Files* window, leave the default file location and select **Next**.
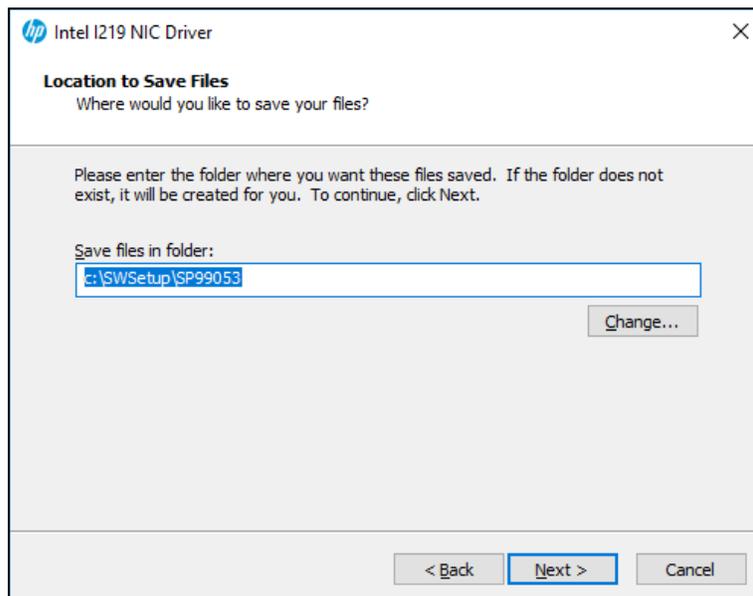

Figure 34: Location to Save Files Window

16. A command window opens briefly and exits.

    Installation is complete.

17. Reboot the system.

18. Repeat section *3.5.1 Follow these steps to check the NIC driver version* to verify that the NIC driver version is 12.18.x.x.