Ingenico Credit Card Terminal Installation, Testing & Usage

Table of Contents

In the Box

Your Ingenico iPP320 comes with the following items included as standard equipment from Elavon:

- iPP320 Terminal (pictured above)[1]
- AC Power Supply
- Magic Box (pictured on page 4)
- 1x Ethernet Cable, 7'
- 1x USB A/B cable, 6'
- An *Installation and Quick Reference Guide* from Ingenico
  - o Note: athenahealth recommends you ignore the above guide during the installation process and follow the instructions provided in this guide instead.

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[1] Using the industry-standard Kensignton® locking port on the device requires the purchase of a separate lock.

Requirements

Before you begin installing the Ingenico Credit Card terminal, check that you have the following basic requirements:

- **Administrative access in Windows.** Contact your IT staff if you need assistance.

- **Browser: Latest Version of Google Chrome, Internet Explorer (IE) 11, or Microsoft Edge.**
  - Note: IE versions prior to 11 *cannot* be supported for technical reasons.

- **Administrative access in athenaNet.** This is only required for the *first time* your practice adds the Ingenico device.

- **Available connections:**
  - Power outlet for AC adapter
  - USB port on the local computer
  - Ethernet port for communication with Elavon's servers via the Internet
  - Properly configured network and firewall (See **Network/Firewall Configuration** section)

Note: These basic requirements are all that are needed for most installations. Additional detailed requirements can be found in the **Troubleshooting and Installation Notes** section. General athenaNet requirements can be found in the **athenahealth Tech Requirements** document on the Resource Hub.

Install athenaNet Device Manager (ADM) and Drivers

Important Note: Do not connect the Ingenico Credit Card terminal to your computer until instructed to do so.

Before you can begin Ingenico Credit Card terminal installation process, you must first install **athenaNet Device Manager (ADM),** an application that will allow you to use device supported by athenaNet. The following installation instructions are customized specifically for the Ingenico credit card terminal. **Note**: For general instructions, troubleshooting, and questions related to ADM installation, please consult the general ADM installation instructions found at the link here. If you are certain you already have ADM installed, but have not installed the Ingenico ADM module, you may skip to step 4 below.

1. Display the Device Management page in athenaNet: On the Main Menu, navigate to Settings, under **My Configurations** section click **Device Management**.

2. Click the Download link and launch the installation program that downloads (check your downloads window in your browser, type "Ctrl-J" in Chrome/IE).

3. Complete the installation wizard that launches.

4. ADM is now installed on your computer. Return to the Device Management page in athenaNet: On the Main Menu, navigate to Settings, under **My Configurations** section, click **Device Management**.

5. If the "Ingenico" device does not appear in the **Devices** table, click Add new. Additional fields appear. If the device already appears in the table, skip to step 7.

    Important Note: Adding/removing devices may only be done by athenaNet users with administrative permissions. In most cases this is a practice manager, or similarly permissioned super-user. This step only needs to be performed once per practice if "all" departments are selected, below.

- **Device** — Select the **Ingenico** device from the drop-down menu.
- **Department(s)** — Click All to be able to use the device in all departments (recommended), or click Selected to choose the departments that can use the device.

6. Click **Save**. A new row will appear in the **Devices** table below for the Ingenico device.

7. In the **Devices** table, click the install link in the **ADM Module** column to install the module for the Ingenico.

- Note: This step is optional. We recommend performing this step on your first installation for the smoothest experience. However if you do not perform this step, athenaNet will automatically install the module at the time of first use. This is useful when deploying many Ingenico devices on a large number of computers.

8. Install the Ingenico USB drivers by clicking the Download link in the Device Software column, as shown below. Run the installer file that downloads to begin the automatic installation, which will close when complete.

Please note that during installation it is normal to see the following screen not change status for ~1-4 minutes depending on the speed of your computer as the drivers install.
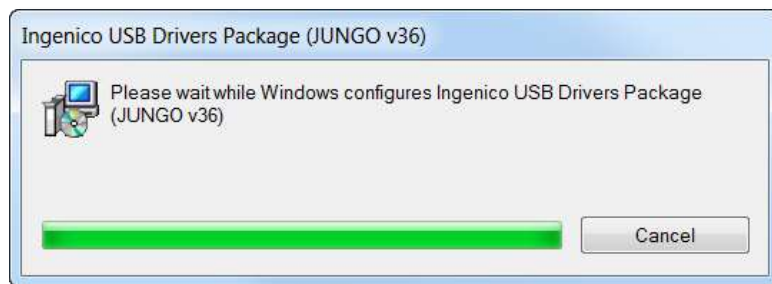
9. After completing this installation, reload the **Device Management** page (**Settings**, **Device Management**) to confirm installation. Successful installation will be reflected with green "Installed" text, as shown below.

| edit \| delete Ingenico | All | ● Not connected | v1.0.3.0 | Installed |

10. Last, to ensure your browser works properly, you will need to configure your browser for athenaNet. On the Main Menu, navigate to Settings, under **My Configurations** section, click **Configure Your Browser**. Under the **Browser Settings** heading, click the **Update Settings** button (if present), which may cause your browser to restart. On success, the button will no longer be present on the **Configure Your Browser** page and you will see the green text as shown below:

Browser Settings

Your browser settings currently adhere to the supported configuration for athenaNet.

- Note: Skip step 10 if you have already performed this step. The green text above will show if this is the case.

11. On the Main Menu, navigate to Settings, under **My Configurations** section, click **Device Management** to return to the setup page. Now proceed with the steps under **Ingenico Terminal Installation** below.

Ingenico Terminal Installation

12. The Ingenico "Magic Box" is the rounded box shown in the center of the figure below. Connect the USB cable to the Magic Box and to your computer, as shown below. **Note**: It is not necessary to disconnect any other devices (ex: RDM check scanner) from the computer unless you need a free USB port.
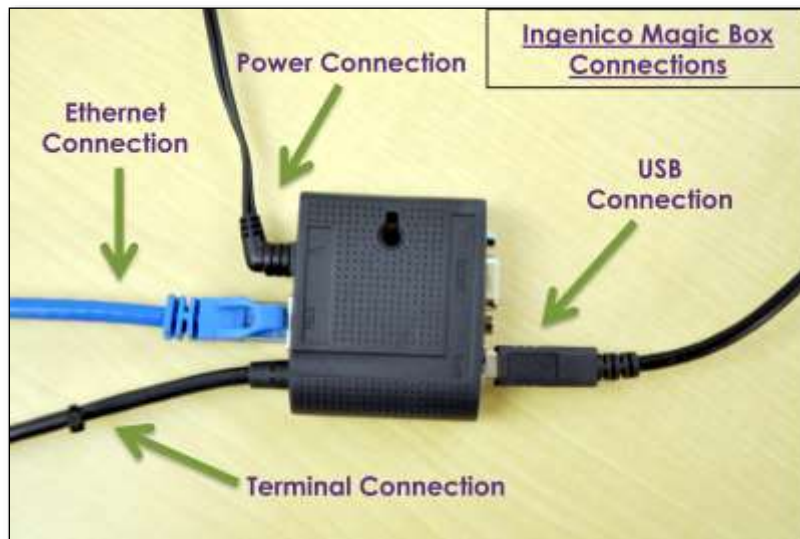
13. Connect the Ethernet cable to the magic box (see above) and your Ethernet wall jack or hub.

14. Plug the power cable into the Ingenico Magic Box and a power outlet.

15. Connect the Ingenico Magic Box to the credit card terminal as shown below. The terminal screen will light up and make a beep. Terminal startup will take about one minute.

Note: During the startup process, you may see the following message:

This message indicates that the device is currently searching for network connection, and is not necessarily indicative of an issue. Should the message persist for an extended period of time (5+ minutes), then there may be an issue that needs to be resolved before startup can complete (see *Q: My terminal is stuck at either the "Initializing Host IP" or "Network Problem" screen. What should I do?* in the troubleshooting section).

- Upon successful completion, you will see the athenahealth logo screen. **Important:** If terminal startup takes more than five minutes, see the **Troubleshooting and Installation Notes** section on page 11.

16. Log in to athenaNet and navigate to Settings in the navigation bar.

17. Select **Device Management** in the **My Configurations** section.

18. In the **Devices** table, verify that the Ingenico row is present, displays a green circle in the **Status** column, and a version number displays in the **ADM Module** column instead of an install link. If both the green circle

and the version number display as shown below, your terminal is properly installed. Your terminal is now ready for use with athenaNet.

| edit \| delete | Ingenico | | All | ● Connected | v1.0.3.0 | Installed |

Note: The version number you see may be different from that shown above.

- **Important:** If either does not display as expected, please see the **Troubleshooting and Installation Notes** section on page 11.

Testing a Credit Card Payment

We recommend conducting a test transaction once you complete installation to verify that the system is working correctly. Note that this step can only be done once you have gone live on CCP.

Note: Full instructions on using the Collect Payment page in athenaNet are available in O-HELP. The test below uses the Nonpatient payment feature, but you may also use a test patient if you wish.

1. In the navigation bar, click **Financials**.

2. Select **Nonpatient Payment Activity** from the menu.

3. Click the **Collect payment** link. The Collect Payment Page will appear in a popup window, and the terminal will light up. If the popup window does not appear, check that your Chrome popup blocker is disabled!

4. Enter test values into the **description** and **amount** fields (see suggested values below):
    a. **Description:** TEST PAYMENT
    b. **Amount:** $1.00

5. Enter the **cardholder name** for the credit card.

6. Click the **Collect Payment** button. The terminal will activate and prompt you with the necessary instructions. During the transaction the athenaNet browser window will display similar instructions.

7. Follow the displayed instructions to complete your test payment. You will know the payment is successful when the browser displays a payment receipt.

Congratulations: You're finished with the setup and testing! Please read the Usage Tips, and Troubleshooting sections below, as well as O-Help on the Collect Payment page for further information.

Usage

Using **Swipe/Manual** card entry (non EMV cards or over-the-phone transactions)

- **Swipes**: Cards without a chip (non-EMV) should be swiped using the magnetic stripe reader on the side of the device (see image below) when prompted by the terminal. If an EMV card is swiped before attempting the insert method, the terminal will prompt for the card to be inserted (see next section). The terminal will accept the EMV card entry via magnetic swipe *only if the insert method is attempted and fails first*.

- **Manual**: When performing an "over the phone" or other manual transaction, manual entry should be specified in athenaNet. In this case, the terminal will prompt for a credit card number, expiration date, CVV code, and zip code. Enter these values using the PIN-pad and pressing the green key after each entry to complete payment.

Using **Insert** card entry for EMV cards

Accepting credit cards with EMV chips is similar to accepting magnetic stripe cards, with a few key differences. To accept EMV card payments:

1. Begin the transaction normally. When prompted by the terminal, completely **Insert** the card (see picture below), chip first, into the slot until it stops. Do not remove the card until the transaction is complete or the transaction will fail.

2. For "chip-and-PIN" cards, the terminal prompts the cardholder to enter their PIN. For "chip-and-signature" cards, no special action is required.
   o Note: There is no way to turn this PIN-entry "feature" off, it is a consequence of the new EMV technology being pushed by the major card brands (VISA/MC/AMEX/DISC).

3. When the transaction is complete, the terminal prompts the cardholder to remove their card. If not removed promptly, the terminal beeps to remind the user to remove their card. Only remove the card after the message is displayed. Early removal of the card results in a failed transaction.

Notes:
- If you swipe an EMV card by mistake, the terminal will recognize the chip card and prompt the user to insert the card instead of swiping.
- Most US cards will be "chip-and-signature" early on in the EMV transition.

Using **contactless payments** (includes mobile device payments)

Currently, the following contactless payment methods are known to work with the Ingenico devices and athenaNet:

- Apple Pay
- Android Pay
- Samsung Pay
- Most NFC-capable credit cards

athenahealth does not officially support other contactless payment methods at this time. If a contactless payment method fails, try again with a different payment method, such as chip-card insertion, swiping (for non-EMV cards), or manually keying in the card number. The instructions below are for contactless credit cards and generic mobile devices. Other services and cards may be slightly different, but will act in a similar manner.

1. Begin the transaction normally in athenaNet. When prompted by the terminal, hold the customer payment device (ex: phone) or credit card to the terminal's screen area. A successful tap may take a moment to register with an audible tone.

2. Confirm the amount:
   a. With NFC-capable credit cards, the terminal emits a series of tones, and then the Confirm Amount screen appears.
   b. With a mobile device, you might need to authorize the transaction ahead of time and re-tap the device on the terminal to trigger the tones and the Confirm Amount screen.

Notes:
- Contactless transactions can be impaired if more than one contactless wireless credit card or device is near the terminal. To ensure proper functioning, only one NFC- capable device or card should be within range of the terminal.

- If a transaction is unsuccessful, "Bad Tap" displays on the terminal (see image below). Try again using the same method or swipe/insert a card into the terminal.

Other General Usage Tips

- When the terminal screen does not display the athenahealth logo during a transaction, you may cancel an incomplete transaction as long you have not progressed to the "Processing" stage by using the red cancel key.

- The yellow key on the terminal acts as a backspace key when manually entering data such as card number, CVV code, etc.

- The green key on the terminal is serves as an "Enter/Yes" key, and is used to proceed to the next screen when entering data, or can be used instead of the "1" key on the final amount acceptance screen.

- Note that EMV "Chip and PIN" cards that some cardholders may have require a card holder to enter a private PIN during a transaction. Therefore, it is desirable to make the terminal patient-facing to allow PIN entry. The unit may be secured by using a lock in concert with the Kensignton® lock slot found on the side of the device as pictured on the first page of this manual. Locks are commercially available from a wide variety of retailers.

Troubleshooting and Installation Notes

Troubleshooting instructions that address common installation issues are below. If you require additional assistance, please contact your IT department.

Q: Where can I find the Frequently Asked Questions (FAQ) for EMV/P2PE and how it affects my practice?

A: The FAQ at the following URL contains the answers to a large number of questions about EMV/P2PE as well as additional information about the iPP320 device: https://community.athenahealth.com/docs/DOC-1830
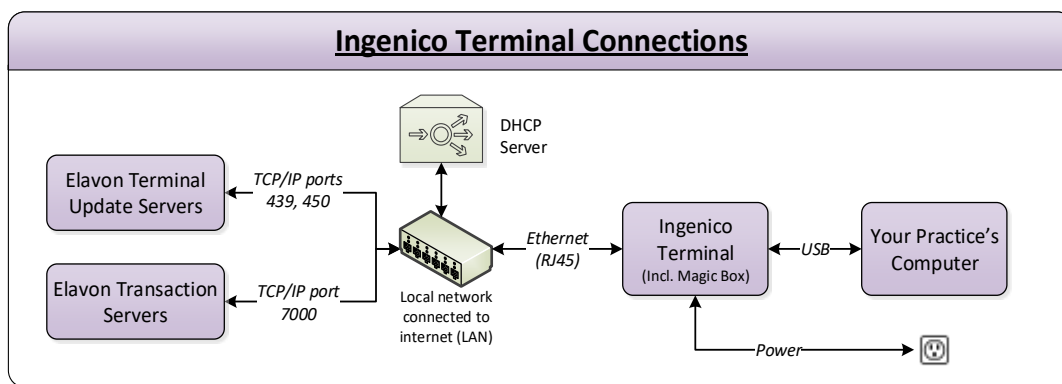
Q: Where can I find a detailed list of the requirements for the iPP320 terminal?

A: The use of the Ingenico iPP320 terminal comes with certain technical requirements:

- General athenaNet requirements: See the **athenahealth Tech Requirements** document on the Resource Hub.

- Browser: Only the latest version of IE 11, Chrome, and Edge are supported.

- Operating System: Windows (7/8.1/10) is supported, Mac OS is not supported.

- Software/Permissions:

    o Installation of the athenaNet Device Manager and Ingenico driver software packages will require administrative rights on the local computer.

    o Installation of the most recent version of the .NET Framework.

- Physical Space:

    o The iPP320 terminal measures 6.9 x 2.95 x 1.38" in size. It is designed to be a patient-facing device, which is an important consideration for EMV PIN # entry. Practices may wish to secure the terminal using the Kensington® locking port (lock not included).

- Power/Connections:

    o An Ethernet port (RJ45) will be required for the device to communicate with Elavon's servers via the internet.

        ▪ Note: Wireless (WiFi) connectivity within the devices is *not* an offered hardware option, however customers may connect the device to a WiFi access point/bridge via Ethernet/RJ45 cabling if they so choose.

    o One available USB port on the local computer is required.

    o A power outlet is required for the AC adapter.

- Networking/Firewall configuration:

    o In addition to the wired Ethernet connection mentioned above, your network must be configured to allow certain connections from the credit card terminal to the internet to work properly. The following **outbound** hosts and ports must be allowed (i.e. from iPP320 terminal to these internet hosts).

        ▪ **fuseboxtrant.elavon.net** on port **7000**:

- Used to connect to Elavon's processing gateway. Note that the IP address for this host may change! [2]
    - **termmgttest.elavon.com** and **termmgt.elavon.com** on ports **439** and **450** :
        - Used to connect to Elavon's firmware update servers. Note that IP addresses may change for these hosts! [2]
    - o **These networking requirements will not require special changes for basic network setups**, such as those using NAT (network address translation) gateways without special restrictions. While NAT between the Ingenico terminals and Elavon servers works fine, proxy servers are *not* supported. Please contact your IT department if you have questions about your network configuration.

The diagram below summarizes the ports and connections that the terminal requires for proper operation. For a related transaction flow diagram, please see the Credit Card Security FAQ: https://community.athenahealth.com/docs/DOC-1830.

Ingenico Terminal Connections

DHCP Server

Elavon Terminal Update Servers

TCP/IP ports 439, 450

Elavon Transaction Servers

TCP/IP port 7000

Local network connected to internet (LAN)

Ethernet (RJ45)

Ingenico Terminal (Incl. Magic Box)

USB

Your Practice's Computer

Power

Q: Can I move a terminal between different physical locations/merchant accounts?

A: So long as you are within the athenahealth network, yes. Any Ingenico terminal running the Simplify software should be usable with any properly configured merchant account in athenaNet. The merchant account information is *not* encoded into the terminal. Instead, athenaNet directs the terminal to use a specific merchant account based on the athenaNet user ID and department they are logged into. This feature enables practices to make payments to any of their merchant accounts from any terminal, and also allows practices to move terminals between locations, should the need arise.

Q: Where can I find instructions/troubleshooting for athenaNet Device Manager?

A: Instructions applicable to all devices can be found in the athenaNet Device Manager guide here: https://community.athenahealth.com/docs/DOC-4852. Note that this guide also has a troubleshooting section that covers a wide variety of problems encountered when using ADM.

Q: My terminal is stuck at the "Initializing Host IP" or "Network Problem" screen. What should I do?

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[2] Network administrators are strongly urged to use DNS-based filtering for their firewalls due to the potential for IP addresses to change. However, certain setups are not compatible with DNS filtering. For such networks, athenahealth recommends white-listing communication to ports **7000**, **439**, and **450** on the following Elavon-owned IP ranges: **198.203.191.0/24** and **198.203.192.0/24.**

If the terminal stops for an extended period of time (5+ minutes) at either the "Initializing Host IP" or "Network Problem" screens (see images below), the terminal is unable to receive an IP address from the local network.

Try the following solutions:

1. Check that your Ethernet cable is connected to the Magic Box and your Ethernet connection (usually a wall jack or hub connection—*not* your computer's Ethernet port).
2. If you fix a network issue, you may need to restart the device by pressing and holding the yellow and "**#**" keys for about two seconds. In rare cases, it may be necessary to perform a more complete reset by disconnecting the cable at the back of the terminal for 30 seconds, then reconnecting.
3. Ensure that your network is set up to serve DHCP[3] to computers that are connected to the network. You may need to consult your IT department to confirm this setup.

If you have been able to confirm that the terminal has an IP address by inspecting your DHCP server but you are *still* stuck at either the "Initializing Host IP" or "Network Problem" screen above, it is possible the device may have an IP address but is unable to resolve Elavon DNS addresses. This can happen if other networking issues prevent access to these resources. Please consult the **Advanced Network Troubleshooting** section on to troubleshoot issues of this nature.

Q: Why does nothing happen when I click the "Collect Payment" link?

This may be happening because your browser has a popup blocker installed or activated for athenaNet's pages.

Try the following solutions:

1. Ensure that you have followed the directions in on page 4 to **Configure Your Browser**, which should disable popups on athenaNet pages in Chrome**.**
2. Disable any third-party pop-up blocking software you may have installed to see if this is the cause of the issue.

Q: Why don't I see the green circle or "Connected" status on the ADM page?

If the ADM page shows that your device is not connected, this indicates that your device is having issues communicating with the ADM tray application, *or* that the ADM tray application may not be started or communicating with athenaNet.

Try the following solutions:

1. Navigate to Settings in the navigation bar.

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[3] DHCP is on by default in most common consumer-level routers and most corporate networks. In some cases, your network administrator may require the device's MAC address to setup DHCP properly. This can be found on the label on the back of the device. If your setup needs a static IP assignment, see "Q: How do I assign a static IP address to an Ingenico terminal?".

2. In the **My Configurations** section, select the **Device Management** link. First check to see that a green circle and "Connected" as well as a version number show in the upper left portion of the page, as shown below. If this is not your problem, you skip to step 4.

3. If the status under the athenaNet Device Manager heading is not connected and the version does *not* show a version number (e.g., "1.2.0.0," or similar), there is an issue with the ADM installation and you should consult the "Troubleshooting" section of the ADM installation instructions. These instructions can be found at the following URL: https://community.athenahealth.com/docs/DOC-3686.

4. If items above do not appear to be a problem, check that the status and version in the Devices table for Ingenico show "Connected", a version number, and "Installed" as shown below:


5. If your screen is not similar to the image show above, then either the ADM module is not installed, the device is not properly connected to your computer, or the driver software is not installed. Here's how to fix each problem:
   - **If the ADM module is not installed,** click the **install** link in the ADM Module column.
   - **If the device is not properly connected,** check your USB connection, ensure that the device is powered on.
   - **If the driver software is not installed,** follow the steps on page 3 to install it.

Q: How do I find out what IP address and software version the terminal has?

A: When the terminal is idle on the logo screen, you may press "0" on the PIN-pad to see the current software version and device's IP address (see image below). Note that if the IP address is masked (comprised mostly of "X"s), you must further press the green button, enter in "0" on the "Enter Password" screen, and press the green button again in order to reveal the full IP address.

Note that this terminal firmware version number is *not* the same as that shown on the ADM page. The version number on the ADM page refers to the version of the installed ADM software "module" to support the Ingenico terminal, whereas the number displayed on the terminal itself (below) refers to the firmware version installed on the terminal. This second version number, displayed below, may be referred to as the "Simplify version number" (Simplify is the name of the firmware software). Below, are displayed screenshots of the top and bottom of the version screens, which can be scrolled with the F2 (down arrow) / F3 (up arrow) keys.
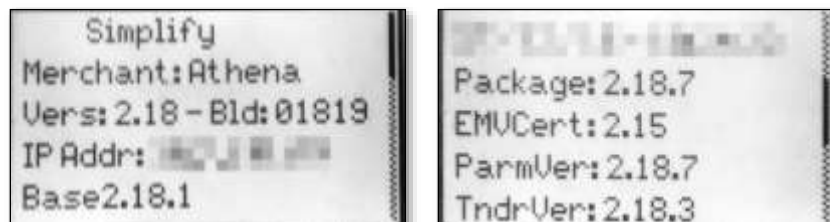
Q: What is the empty port on the Ingenico Magic Box for? Should I connect it?

A: The empty port labeled RS232 is not used, and does not need to be connected.

Q: Can I assign a static IP address to an Ingenico terminal?

A: For security, future compatibility, and practical reasons, athenahealth does not support using static IP addressing on the Ingenico terminals. The terminals only support IP address assignment via the industry-standard DHCP mechanism. For most users, this means letting your router auto-assign a random internal IP address to your device, and no further effort is required.

If your practice's policies require a device to always have the same IP address, this is still possible, even with DHCP. A common method to accomplish this "same IP address" requirement is to list the Ethernet MAC addresses of the appropriate devices in your DHCP server's administration settings, and set each MAC address to be mapped to a specific IP address (or IP address range). In this way, you can ensure that each terminal is always assigned the same IP address. The terminal's Ethernet MAC address can be found on the back of the terminal (see figure below). Note that for a large number of devices, it may be easier to scan the barcode to quickly generate a list of MAC addresses.

Q: I want to restart the credit card terminal. What should I do?

A: In the event that the terminal becomes unresponsive or requires restarting, you can restart the terminal by pressing and holding the yellow and "#" keys for approximately two seconds. This will cause the terminal to beep and restart. In rare cases, it may be necessary to perform a more complete reset by disconnecting the cable at the back of the terminal for 30 seconds, and reconnecting.

Q: Something else is not working right. I want to reset everything, how can I do this?

A: The cleanest way to perform a full "reset" of your browser, athenaNet Device Manager (ADM), and terminal is as follows:

1. Close all of your open browser windows.

2. Exit the ADM tray application by right clicking on the ADM icon in the Windows notification area and selecting "Exit" from the menu. The numbered image below shows you how to complete this step.

3. Start the ADM tray application again by going to the Windows menu and launching "athenaNet Device Manager" from your programs.

4. Reset the credit card terminal by holding the yellow and "#" keys for approximately two seconds.

This completes a reset of all of the systems involved in the credit card device communication system.

Q: Why do I receive an SLR COMMUNICATIONS ERROR message after inserting or swiping the credit card?

A: The SLR COMMUNICATIONS ERROR means that the pinpad is unable to reach the payment processor within the expected time frame. This is generally a network issue caused by a blocked port, an ISP outage, or too much traffic somewhere on the network downstream from the device. Please review page 11 of this guide and be sure the device is not connected to a network switch. A direct connection to a router or wall jack with known internet service is recommended.

Please re-attempt the payment. If a re-attempt is unsuccessful, refer this issue to your Network administrator or IT to:

1. See important recommendations for improving athenaNet performance here: https://community.athenahealth.com/community/resource-center/tech/blog/2018/01/30/improving-athenanet-connectivity.

2. Test connecting the device on a different network or at a known working connection. If the device encounters this error on another network, or if a known working device works fine on this network, we may replace the device.

Terminal Firmware Updates

Elavon and athenahealth will occasionally issue a "firmware" update for the Simplify software running on the Ingenico terminal itself. These updates can add new features and improve security. To check which version of the software you have, press the '0' key at the athenahealth logo screen.

Major updates will be pushed out automatically as part of an athenaNet monthly release, and will trigger the first time a payment is attempted after the update is made available. When this is the case, a release note will indicate the update. The update process will result in a user seeing a dialog box indicating an update is necessary, which will then prompt the device to update. The expected number of major updates per year is ~1-2 updates.

Manual Update Procedure (Simplify Firmware)

In order to minimize disruption to workflows, **minor updates will not be pushed out automatically**. Users who want to receive these updates sooner may need to update their terminals manually as described below. In addition, the procedure below may be useful for clients needing to troubleshoot, or in case the automatic update process for major releases is not working correctly.

1. **Hold down the yellow and # buttons** on the Ingenico terminal until you hear it chirp, then release the buttons.

2. **Interrupt the normal bootup**: Watch the Ingenico screen during the bootup. When you see the Initialization screen or any other screen where the "Enter" black box appears (see below), press the green key to interrupt normal bootup and bring up the "Elavon Sub Menu".

3. **Wait for a *full* 60 seconds.** While the terminal may not appear to be doing anything, it is actually acquiring an IP address from the network in the background. If you don't wait long enough and go to the next step too quickly, you will get an error about DNS, and will need to reboot and try again. Note, if your device does not get an IP address on normal boot up, you will need to solve that issue first (see *Q: My terminal is stuck at either the "Initializing Host IP" or "Network Problem" screen. What should I do?*).

4. **Press the green key again** to "Initiate Ingestate":
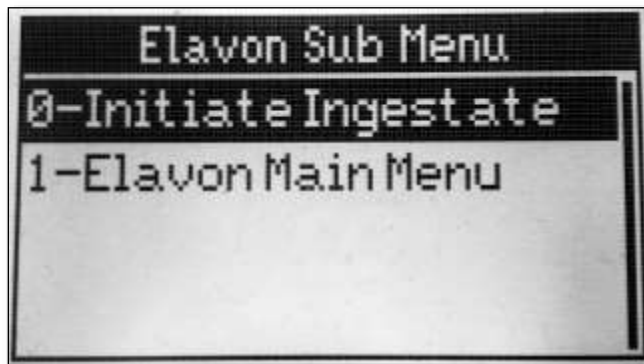
5. You should see **CONNECTION** show on the screen briefly, followed by a bunch of rapidly changing text, as the device goes through the update process.

6. At the end of the process, the device will reboot and boot up normally. Once you get back to "Powered by athenahealth", press the '0' key. Look at the version information (see FAQ item on pg. 14). It should read :

Line 2:   Vers: 2.18 – Bld: 0**1819**

The **bolded** numbers above are the most important numbers to pay attention to when comparing your terminal to the latest version.

Advanced Network Troubleshooting

Important Note: This section designed for IT specialists and departments to help troubleshoot uncommon problems that you may encounter during setup. These problems usually only apply to large enterprise environments due to the way such networks are setup. **Before using the techniques in this section for troubleshooting, it is important to have consulted the relevant section above!**

In certain situations, it is possible that there are impediments to communications between your network and Elavon's networks. When this is the case, it is useful to use the commands below to determine if devices on your network can access Elavon's DNS servers and Elavon's transaction and update servers.

To test if your network can resolve Elavon's DNS records

Run these commands on a machine on the *same network* as your terminal:

- In a PowerShell terminal on a Windows 7 machine, run **nslookup fuseboxtrant.elavon.net**
- For extra detail, on a Linux machine run : **dig +trace fuseboxtrant.elavon.net**

Output should indicate a successful IP address lookup. If it does not, your DNS lookup may be blocked by your firewall, or in rare cases, by Elavon's security team for suspicious-looking activity. If you suspect that your IP address/range is blocked, continue with the tests below. If your IP address is blocked by Elavon, *all* tests will fail on your network, but succeed on other networks (such as via a cellular card or home network).

To test if your network can connect to Elavon's servers on the appropriate ports

Run these commands on a machine *on the same network* (and VLAN if applicable) as your terminal:

- In a PowerShell terminal run each command separately:
  - **New-Object net.sockets.tcpclient("fuseboxtrant.elavon.net", 7000)**
  - **New-Object net.sockets.tcpclient("termmgttest.elavon.com", 439)**
  - **New-Object net.sockets.tcpclient("termmgt.elavon.com", 450)**

You will either get an error [connection issues], or a successful table readout with some connection details. The third row will say "Connected: True" if all is well. If **all** of the above tests fail (including DNS tests), and you are sure your corporate firewall is not the issue, it is possible you may have been blocked by Elavon's security team. If this is the case, please contact athenahealth and we will assist in contacting Elavon to resolve the issue if necessary.

Advanced Device Connectivity Troubleshooting

Important Note: This section designed for IT specialists to help troubleshoot uncommon problems that you may encounter during device usage. **You will need administrative rights on the computer to proceed in this section.**

In certain situations, device-to-PC connectivity can experience interruptions. Generally, these interruptions manifest sporadically (they are not always easily reproducible by performing the same action). Connection issues that happen every time are usually remedied by one of the above troubleshooting sections instead.

There are two general symptoms/situations that indicate you may be suffering from these sporadic issues. Look for the following:

1. Upon entering the Collect Payment page with an Ingenico connected, the following error appears:
   "The device version check returned no result, there appears to be a connectivity issue. Please restart the ADM tray application and/or your browser to resolve this issue."
   o Often, when the computer is rebooted, the error may go away temporarily, but may return intermittently later.

2. The payment process fails mid-payment, after pressing the Collect Payment button, but before a receipt is displayed. This may appear as the system being "stuck" for a period of time while it waits for a response from the device. The end result is almost always that the payment is not posted to athenaNet under the patient's account.
   o In viewing the patient's E-Payment Activity page, the associated payment may appear in one of the following statuses: INTENDED, NOTSENT, or AUTOVOIDED. (**Note**: Payments can appear in the INTENDED or NOTSENT statuses for other, unrelated reasons.)
   o Transactions in the INTENDED status will later be converted to either the NOTSENT or AUTOVOIDED status, after athenahealth automatically queries the processing systems to investigate the transaction. This occurs once every 30 minutes.

In some scenarios, the following method may help to greatly reduce the occurrence of these connectivity issues. **Note**: Depending on your computer's operating system, these screenshots may differ slightly.

1. Connect the Ingenico device to your computer.
2. Navigate to Control Panel\System and Security\System, and open the **Device Manager**.
3. Expand out **Ports (COM & LPT)**. Right click on **Ingenico iPP3xx/iPP4xx Comm Port**. Click on **Properties**:
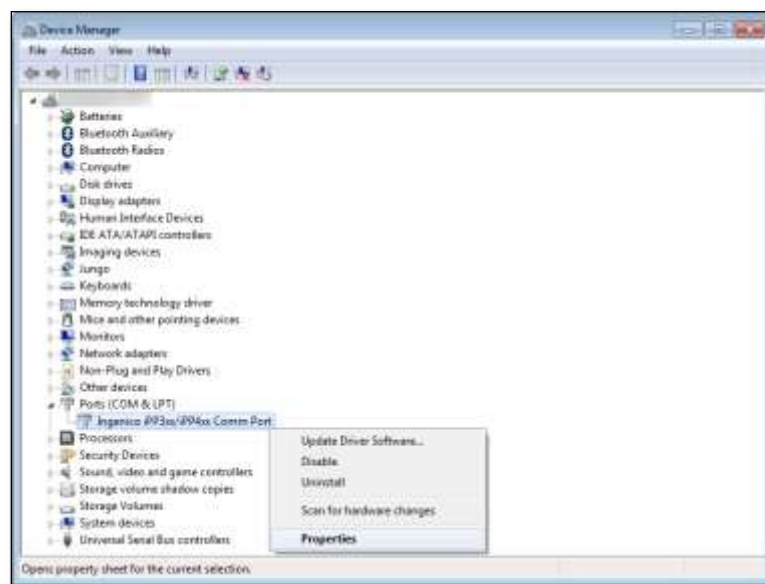
4. In the **Port Settings** tab, click **Advanced…** (**Note**: Do *not* navigate to the **Force COM port** tab.)

5. For the **COM Port Number** dropdown, select a COM port that is significantly higher than any currently in use. For instance, if COM2 through COM6 are currently in use, try selecting COM12. Press **OK**:
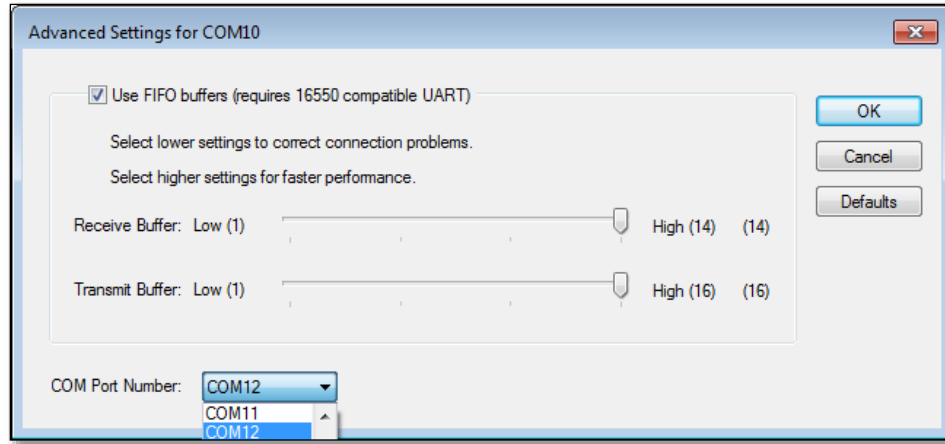
6. Reboot your computer.

If you continue to experience a significant amount of connectivity errors after performing these steps, contact athenahealth and we will attempt to troubleshoot your issue further.