Ositech Titan III Gateway - User Manual

Document Status: Released

Revision History

DATE	REV	REASON
May 03, 2017	A	Initial Document Release – JC
August 03, 2017	B	Added Regulatory Domain Support – JC
August 04, 2017	C	Updated Regulatory Domain Information – JC
August 15, 2017	D	Incorporated Stryker Feedback – JC
November 17, 2017	E	Updated Regulatory Domain Operations - JC

Trademarks

Table of Contents

1 INTRODUCTION

1.1 PURPOSE

This document is a detailed user manual for the Ositech Titan III Gateway family of products. This includes various models that support Wifi, Cellular and Fast Audio operations, or a combination, as well as the International version.

Below, is a picture of an Ositech Titan III Gateway (with Fast Audio support) including its respective protective enclosure. This manual will detail how to install and configure the Ositech Titan III Gateway prior to use with your LIFEPAK® 12 device or LIFEPAK® 15 device. These instructions are common to all hardware variants; however only applicable features will be visible and usable for that specific product variation. As such, only the differences will be highlighted.

Ositech Titan III Gateway with Enclosure (With Fast Audio Support, Microphone Location Highlighted)

1.2 BEFORE YOU BEGIN

a. Inspect contents of box for damage.
b. You will need:
   i. Laptop or PC with CDROM drive and a free USB port.
   ii. Laptop or PC must have any one of following Windows version installed.
      1. XP
      2. Vista
      3. 7 (32-bit or 64-bit)
      4. 8/8.1 (32-bit or 64-bit)
      5. 10 (32-bit or 64-bit)
   iii. The LIFEPAK 12 or 15 device.
   iv. WiFi Access Point and required credentials to connect to it.
   v. Adequate Cellular network coverage if your Gateway is equipped with a Cellular radio also.
   vi. A subscription account with the Cellular Service Provider.

1.3 STEPS MAKING TITAN III GATEWAY READY FOR USE

1. Insert CD and install Configuration Utility, Drivers and User Manual on the PC.
2. Connect the Titan III Gateway to the PC powered by the LIFEPAK device and configure for use.
3. Run sample tests on the LIFEPAK device to verify connectivity and sample transmission operations using the included Wireless Radios. Wifi, 3G cellular or both.

2 DEFINITIONS

3G	***–***	***3rd Generation Cellular***
AP	***–***	***Access Point***
APN	***–***	***Access Point Name***
AUTH	***–***	***Authentication***
BSSID	***–***	***Basic Service Set Identifier***
CCX	***–***	***Cisco Compatible Extensions***
CD	***–***	***Carrier Detect LED***
CDMA	***–***	***Code Division Multiple Access***
CHAP	***–***	***Challenge Handshake Authentication Protocol***
dBm	***–***	***Decibels below 1 Milliwatt***
DNS	***–***	***Domain Name Server***
ECG	***–***	***ElectroCardioGram***
EMS	***–***	***Emergency Medical Services***
FCC	***–***	***Federal Communications Commission***
GHz	***–***	***Giga Hertz***
ID	***–***	***IDentification***
IP	***–***	***Internet Protocol***
IMEI	***–***	***International Mobile Equipment Identity***
INI	***–***	***INItialization File***
I.T.	***–***	***Information Technology***
LED	***–***	***Light Emitting Diode***
Mbps	***–***	***Megabits per second***
MEID	***–***	***Mobile Equipment Identifier***
MSCHAPV2	***–***	***Microsoft Challenge Handshake Authentication Protocol V2***
N/A	***–***	***Not Applicable***
No.	***–***	***Number***
PAP	***–***	***Password Authentication Protocol***
PWR	***–***	***Power LED***
RD	***–***	***Receive Data LED***
RNDIS	***–***	***Remote Network Driver Interface Specification***
AP	***–***	***Access Point***
PEAP	***–***	***Protected Extensible Authentication Protocol***
RSSI	***–***	***Received Signal Strength Indicator***
SEC	***–***	***Second***
SIM	***–***	***Subscriber Identity Module***
SSID	***–***	***Service Set IDentifier***
DNS	***–***	***Domain Name Server***
TD	***–***	***Transmit Data LED***
TR	***–***	***Transmit Ready LED***
UMTS	***–***	***Universal Mobile Telecommunications System***
URL	***–***	***Universal Resource Locator***
USB	***–***	***Universal Serial Bus***
VPN	***–***	***Virtual Private Network***
WAN	***–***	***Wide Area Network***
WEP	***–***	***Wireless Encryption Protocol***
WF	***–***	***Wifi LED***
Wifi	***–***	***802.11 Wireless Fidelity (Wireless Networking)***
WLC	***–***	***Wireless LAN Controller***
WPA-ENT	***–***	***802.11 Wifi Protected Access – Enterprise***
WPA-PSK	***–***	***802.11 Wifi Protected Access – Pre Shared Key***
WPA2-ENT	***–***	***802.11 Wifi Protected Access 2 – Enterprise***
WPA2-PSK	***–***	***802.11 Wifi Protected Access 2 – Pre Shared Key***

3 INSTALLATION FOR WINDOWS

The Ositech Titan III Gateway configuration is achieved through various versions of Microsoft Windows using Internet Explorer. For the scope of this document, the installation process is illustrated for Windows XP, Vista, Windows 7 (32-bit and 64-bit), Windows 8/8.1 (32-bit and 64-bit) and Windows 10 (32-bit and 64-bit). Windows 95, 98, ME, NT, and 2000 are unsupported operating systems.

The following detailed procedure in this section includes installation on the PC of the Ositech Titan III Gateway Configuration Utility, the required USB drivers and corresponding network connection setup created by Windows for use by the Ositech Titan III Gateway Configuration Utility.

Once your Ositech Titan III Gateway has been configured under Windows, you are then ready for operations with your LIFEPAK 12 device or LIFEPAK 15 device and the LIFENET® System.

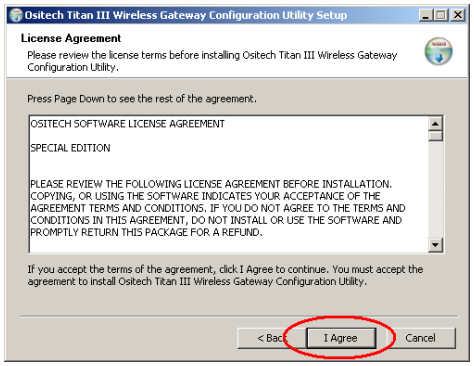
During the software installation, a link to the User Manual is created for you and provided through your system Start Menu. You must review the User Manual prior to configuring your Ositech Titan III Gateway, to familiarize yourself with its operations. Do not connect your Ositech Titan III Gateway until you have run the Windows installation to the PC via USB.

3.1 WINDOWS CONFIGURATION SOFTWARE INSTALLATION

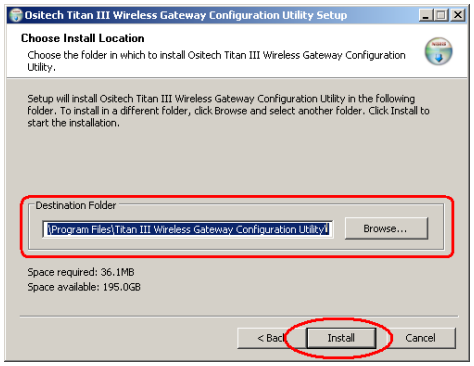
Insert your installation CDROM that was provided as part of your kit. The Fastmenu system will appear. Click the "Install Titan III Gateway Configuration Software" button to begin the installation process. If you do not see the menu system appearing on your computer system, your CDROM Autostart feature is disabled. However, you can still launch the menu system by browsing the contents of the CDROM, and then double clicking the file Autorun.exe.

During this time, be patient while the Ositech Titan III Gateway Configuration Utility Setup Wizard launches, it may take a few moments. Once the Ositech Titan III Gateway Configuration Utility Setup Wizard loads, click the Next button to continue.

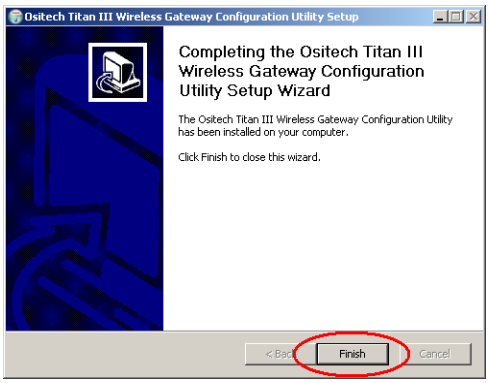
At this point, you need to examine the software license agreement that is displayed. You must accept the software license agreement in order to continue. Once you have read and agreed to the terms and conditions of the software license agreement, click the "I Agree" button to proceed.



The setup wizard will now prompt you for the installation destination folder. If you are satisfied with the default installation path, simply click the Install button. However, if you choose to install to a different folder, click the browse button and select your destination folder of choice, then click the Install button to continue. You are advised to keep the default installation path that is shown.



The setup wizard will now advise you that the Ositech Titan III Gateway Configuration Utility has been installed on your computer. Click the Finish button to exit the Ositech Titan III Gateway Configuration Utility Setup Wizard. The software for Ositech Titan III Gateway is now fully installed and accessible via your Start button. You are now ready to install the required USB device drivers and configure your Ositech Titan III Gateway device using Windows.



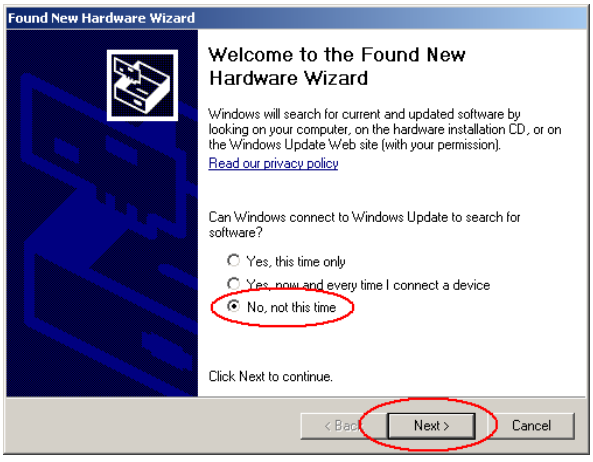
3.2 TITAN III DEVICE DRIVER INSTALLATION

**** IMPORTANT NOTE ****
Since there are many ways and aspects of customizing Windows to your needs, please be advised that the following Windows installation directions and illustrations may not reflect your computer system exactly. The installation instructions are designed to guide you thru the device driver installation as closely as possible to your specific computer system.

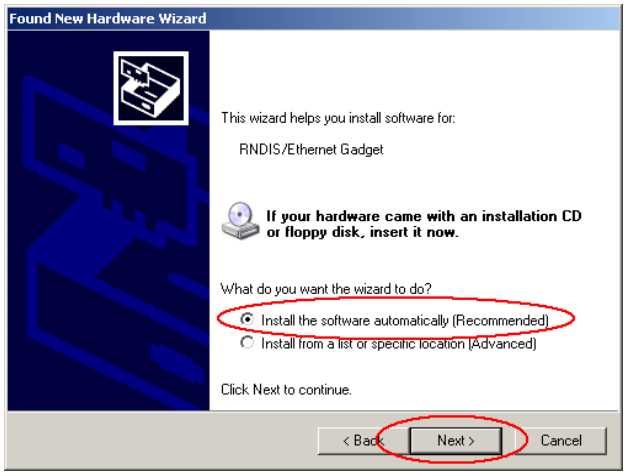
3.2.1 WINDOWS XP USB DEVICE DRIVER INSTALLATION

Connect the Ositech Titan III Gateway to your LIFEPAK device and then power on the LIFEPAK device. Start your computer system, and then connect the USB Cable to the Ositech Titan III Gateway and then insert the other end of the USB cable into any free USB port on your computer system.

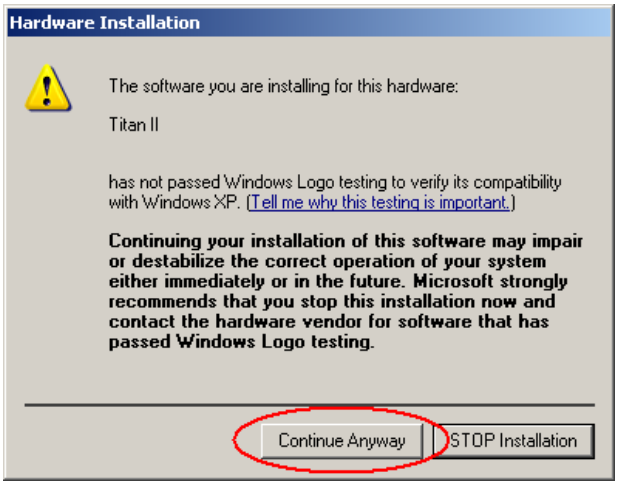
In a moment, Windows will detect the presence of new hardware, and accordingly Windows will launch the Found New Hardware Wizard. Please be patient during this time, as the Ositech Titan III Gateway requires a few seconds to start up normally. Since you do not need to connect to Windows Update to search for software, ensure your bullet is set to "No, not this time", and then click Next to proceed. Please note, certain configurations of Windows XP may not display this screen, and if so, please continue to the next step.



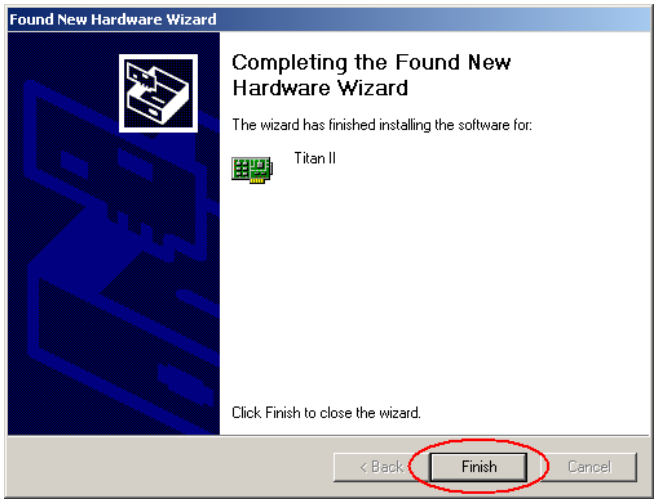
Ensure that "Install the software automatically [Recommended]" is selected, and then click Next to continue with the USB installation.



You will now be advised that the Ositech Titan III Gateway device has not passed Windows Logo testing. You must click "Continue Anyway" to continue with the installation at this point. Please be assured that this software will neither impair nor destabilize your computer system. Please note, certain configurations of Windows XP may not display this screen, and if so, please continue to the next step.



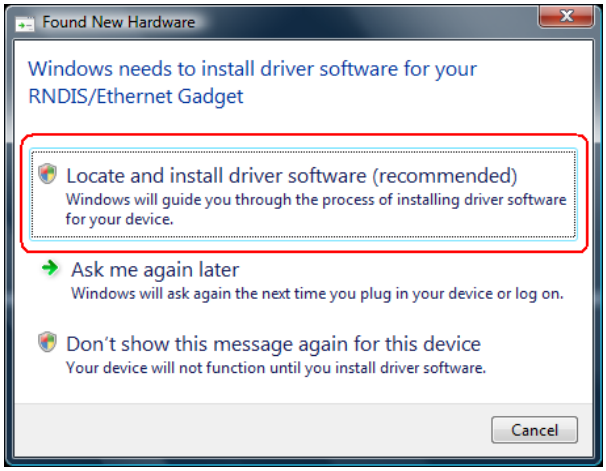
The Found New Hardware Wizard should now advise you that it has completed installing your Ositech Titan III Gateway device. Click Finish to close the wizard.

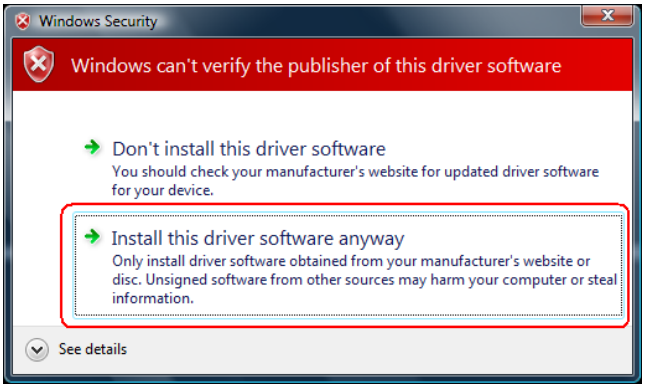


3.2.2 WINDOWS VISTA USB DEVICE DRIVER INSTALLATION

Connect the Ositech Titan III Gateway to your LIFEPAK device and then power on the LIFEPAK device. Start your computer system, and then connect the USB Cable to the Ositech Titan III Gateway and then insert the other end of the USB cable into any free USB port on your computer system.

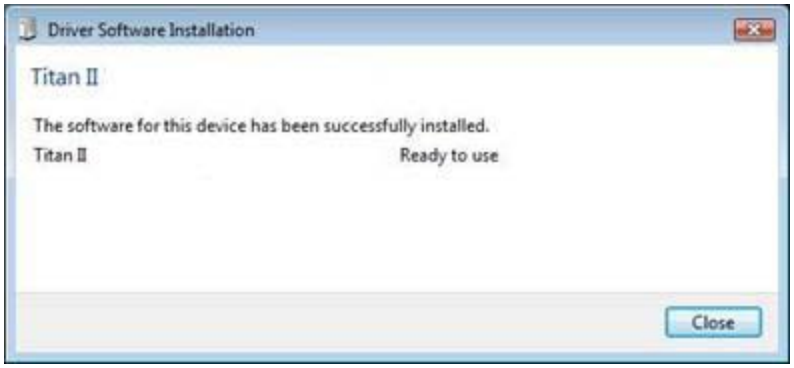
In a moment, Windows should detect the presence of new hardware, and accordingly Windows will launch the Found New Hardware Wizard. Please be patient during this time, as the Ositech Titan III Gateway requires a few seconds to start up normally. Please click "Locate and install driver software (recommended) to proceed with the device driver installation.





You will now be advised that Windows can't verify the publisher of this driver software. You must click "Install this driver software anyway" to continue with the installation. Please be assured that this software will neither impair nor destabilize your computer system.

The Found New Hardware Wizard should now advise you (via your system tray) that it has successfully completed installing your Ositech Titan III Gateway.



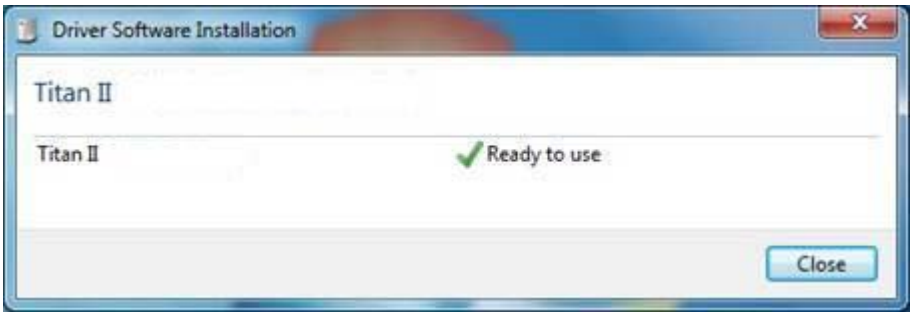
3.2.3 WINDOWS 7 USB DEVICE DRIVER INSTALLATION

Connect the Ositech Titan III Gateway to your LIFEPAK device and then power on the LIFEPAK device. Start your computer system, and then connect the USB Cable to the Ositech Titan III Gateway and then insert the other end of the USB cable into any free USB port on your computer system.

In a moment, Windows should detect the presence of new hardware, and accordingly Windows will launch the Found New Hardware Wizard. Please be patient during this time, as the Ositech Titan III Gateway requires a few seconds to start up normally.

At this point, Windows 7 will proceed to install the Ositech Titan III Gateway, without any further intervention on your behalf.

The Found New Hardware Wizard should now advise you (via your system tray) that it has successfully completed installing your Ositech Titan III Gateway.

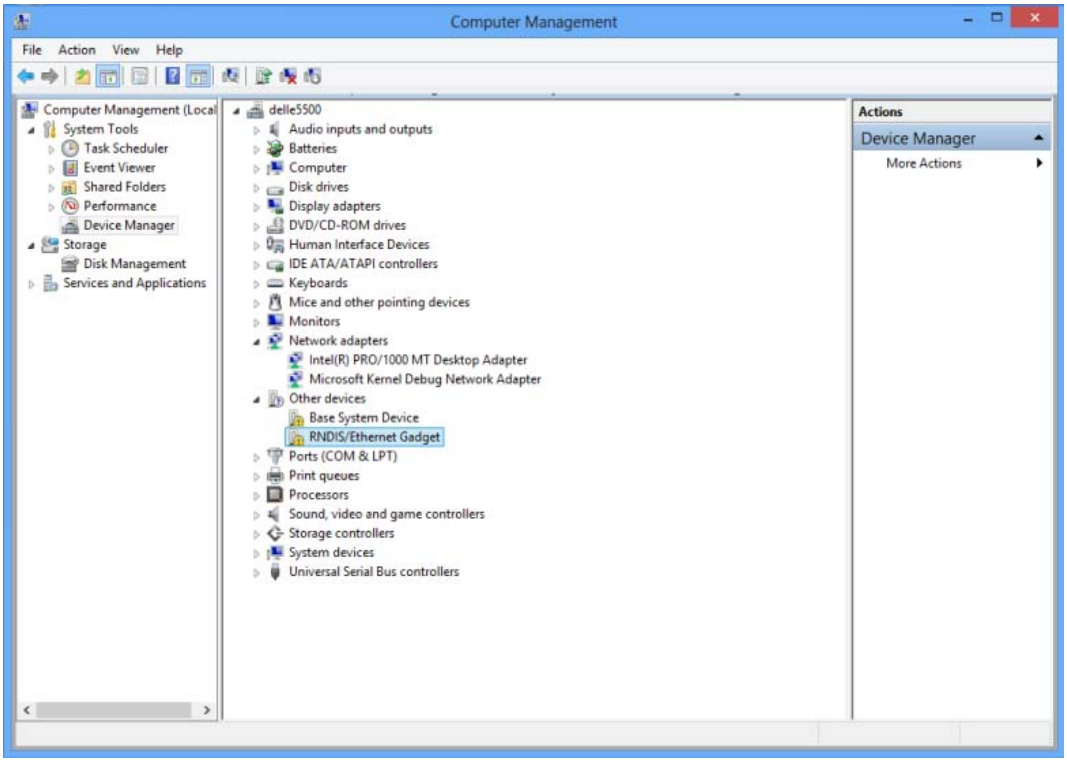


3.2.4 WINDOWS 8/8.1 USB DEVICE DRIVER INSTALLATION

This section applies to both Windows 8/8.1 32-bit and Windows 8 64-bit platforms.

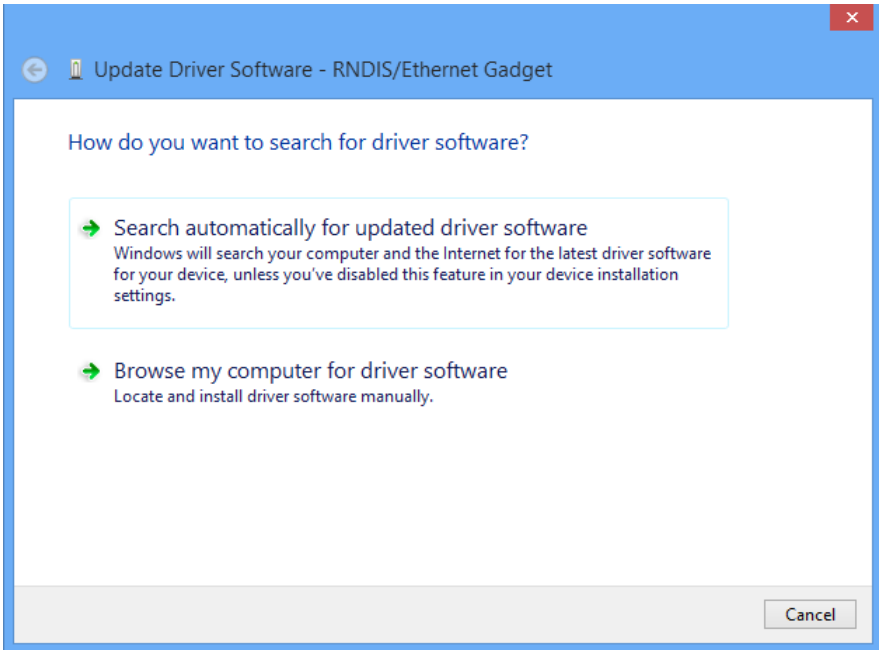
Connect the Ositech Titan III Gateway to your LIFEPAK device and then power on the LIFEPAK device. Start your computer system, and then connect the USB Cable to the Ositech Titan III Gateway and then insert the other end of the USB cable into any free USB port on your computer system.

In order to install the device driver for the Ositech Titan III Gateway, open your Windows Management applet, and view your system Device Manager. Here, under the Other devices category, you will observe an "RNDIS/Ethernet Gadget".

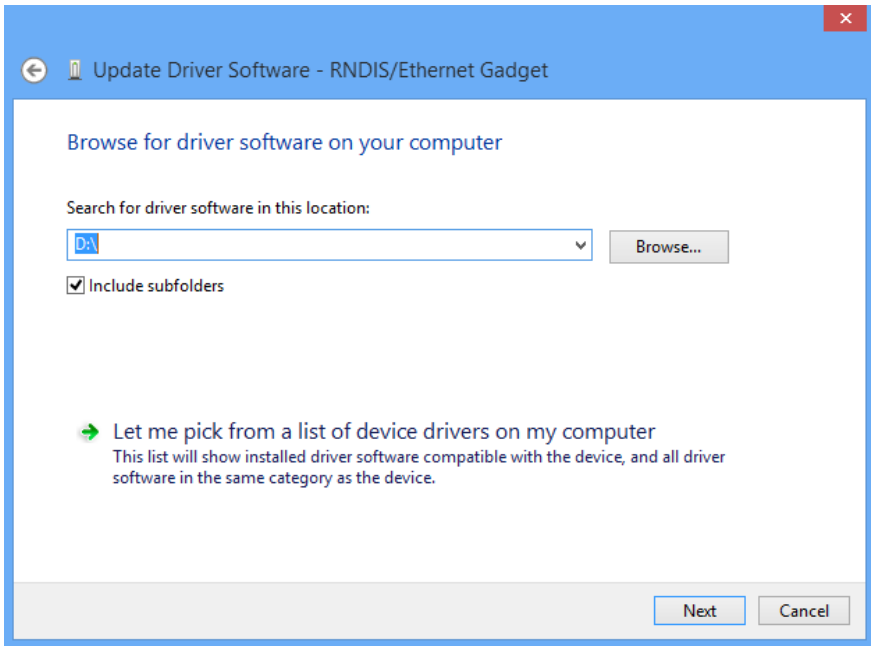


Right click on the "RNDIS/Ethernet Gadget" device and select "Update Driver Software". Ensure you have the Ositech installation CDROM inserted into your CDROM drive at this time.

The Update Driver Software wizard will now greet you. Click "Browse my computer for driver software" to proceed.

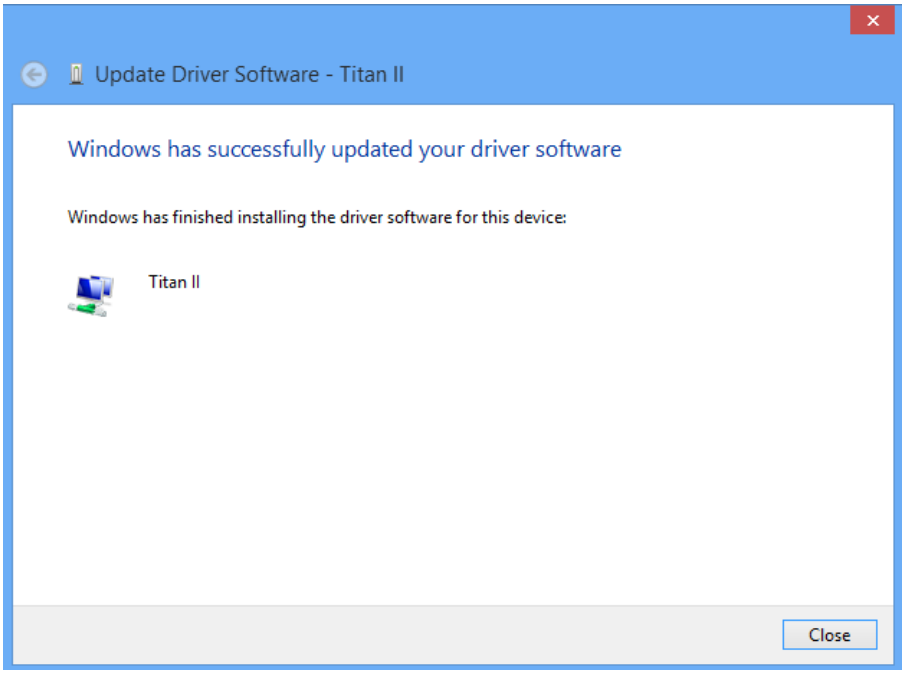


Browse to your CDROM drive. Please note, the drive letter associated with your specific CDROM drive may be different from that illustrated below.



Click the Next button, and at this point, Windows 8/8.1 will proceed to install the Ositech Titan III Gateway, with no further action required.

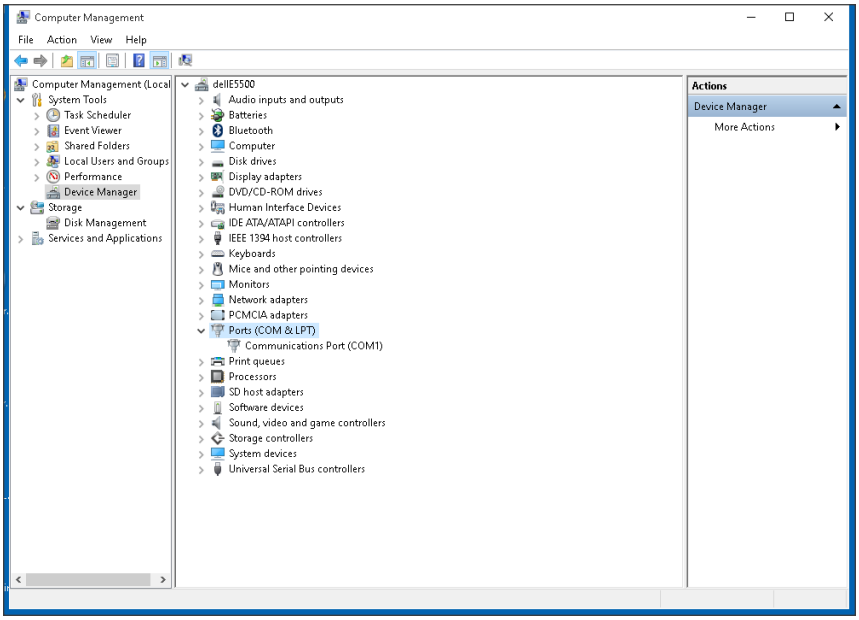
The Update Drive Software wizard should now advise you that it has successfully completed installing your Ositech Titan III Gateway.



3.2.5 WINDOWS 10 USB DEVICE DRIVER INSTALLATION

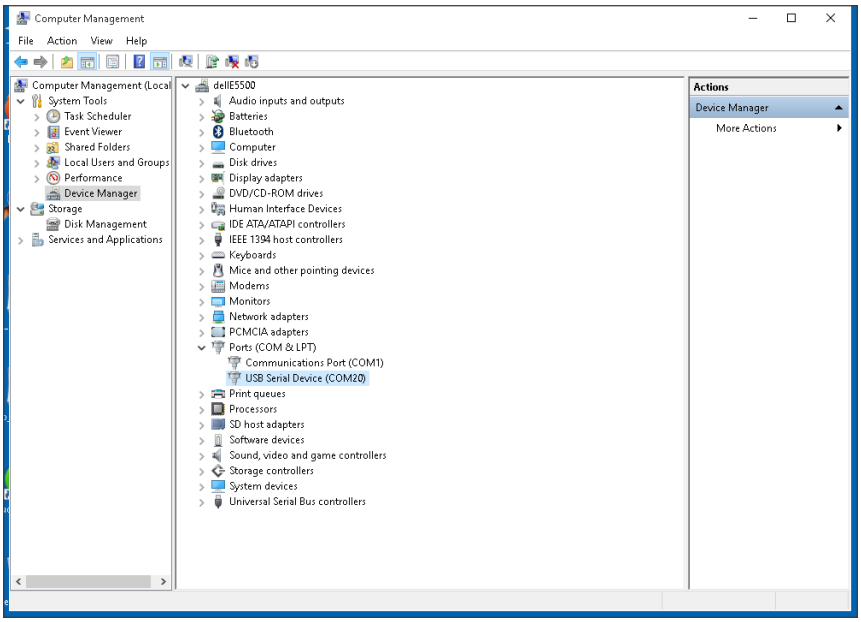
This section applies to both Windows 10 32-bit and Windows 10 64-bit platforms. Before commencing the device driver installation, ensure your computer system is fully updated with any Microsoft patches available for Windows 10, this is essential.

In order to install the device driver for the Ositech Titan III Gateway, open your Windows Management applet, and view your system Device Manager. In your Device Manager, expand the Ports (COM & LPT) devices category.



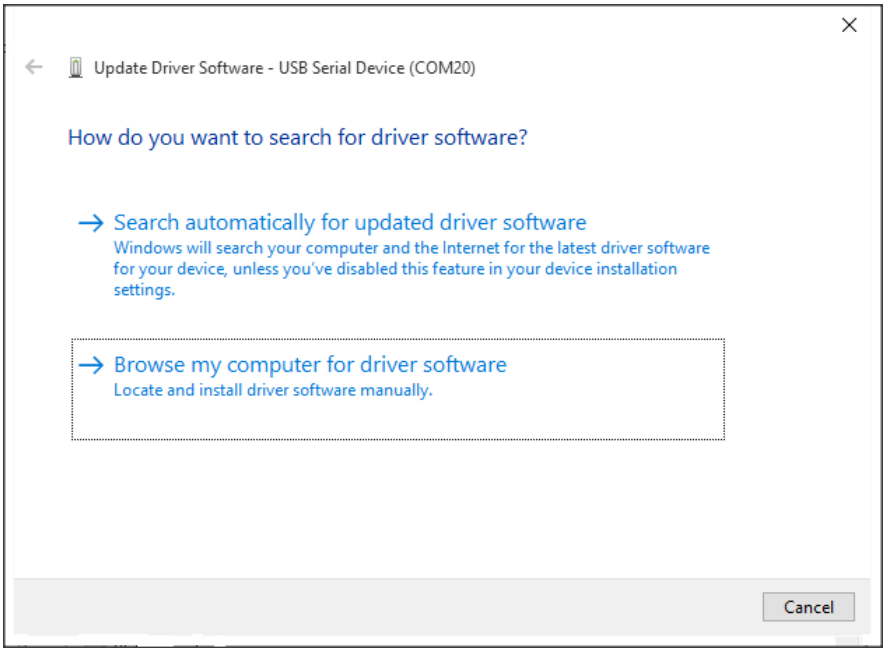
Connect the Ositech Titan III Gateway to your LIFEPAK device and then power on the LIFEPAK device. Start your computer system, and then connect the USB Cable to the Ositech Titan III Gateway and then insert the other end of the USB cable into any free USB port on your computer system.

At this time, you will observe a new "USB Serial Device" arrive in your Device Manager. The COM port listed below is for illustrative purposes only, as your COM port may be different from that shown.

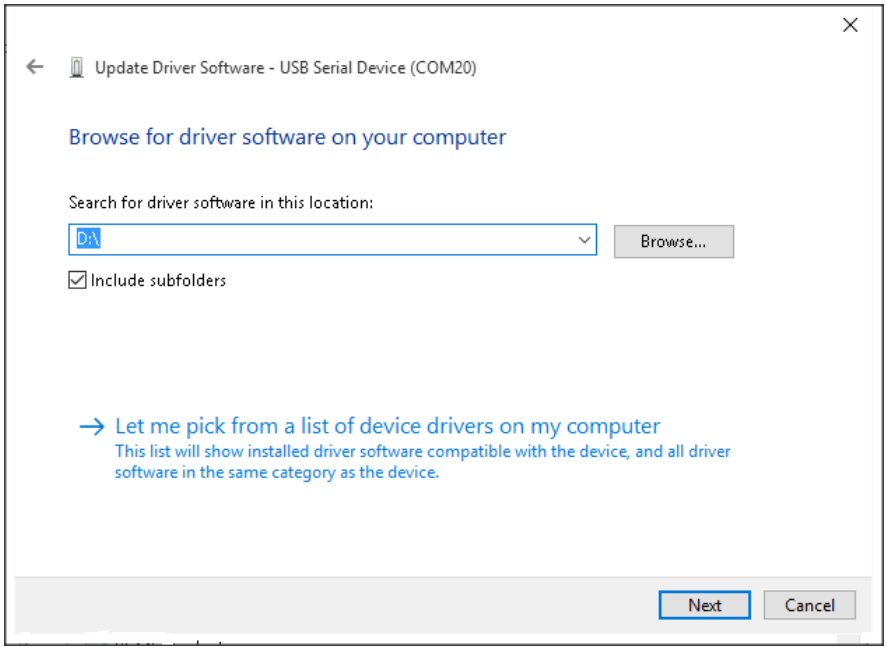


Right click on the "USB Serial Device" device that has just arrived and select "Update Driver Software". Ensure you have the Ositech installation CDROM inserted into your CDROM drive at this time.

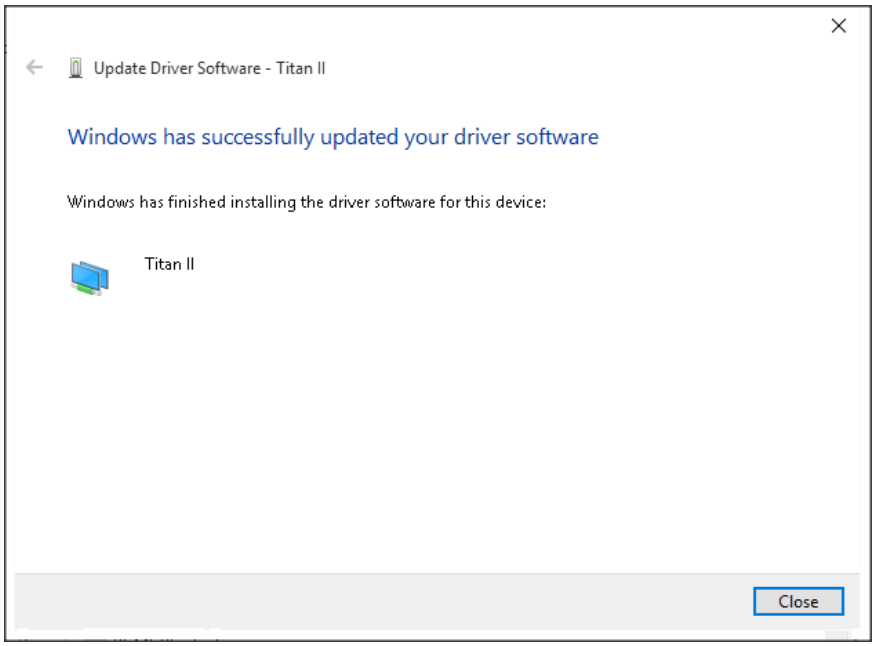
The Update Driver Software wizard will now greet you. Click "Browse my computer for driver software" to proceed.



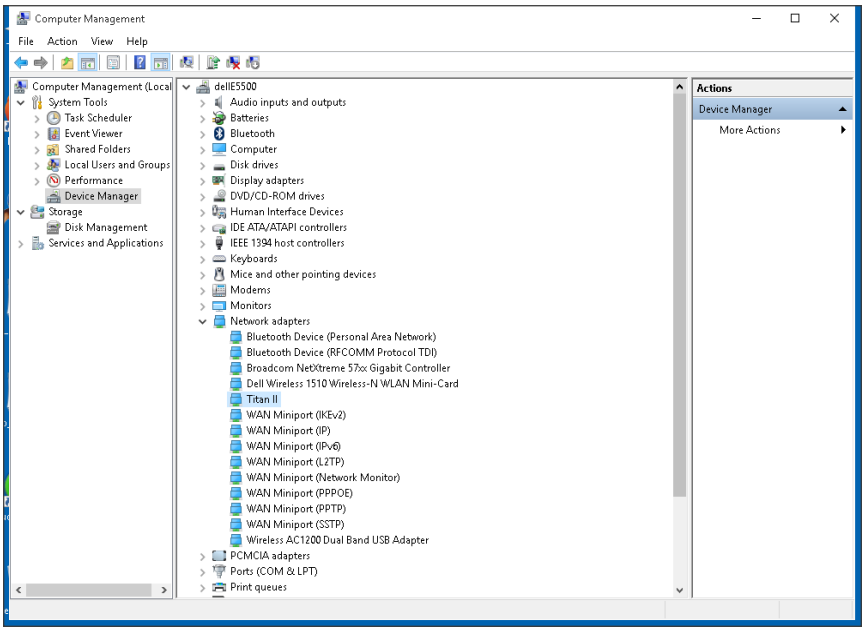
Browse to your CDROM drive. Please note, the drive letter associated with your specific CDROM drive may be different from that illustrated below.



Click the Next button, and at this point, Windows 10 will proceed to install the Ositech Titan III Gateway, with no further action required. The Update Drive Software wizard should now advise you that it has successfully completed installing your Ositech Titan III Gateway.



At this time, the Windows Device Manager will now indicate the Ositech Titan III Gateway as a Network Adapter. The Ositech Titan III Gateway is properly installed when the Device Manager indicates it as a Network Adapter accordingly.



4 LIFEPAK® DEVICE OPERATIONS

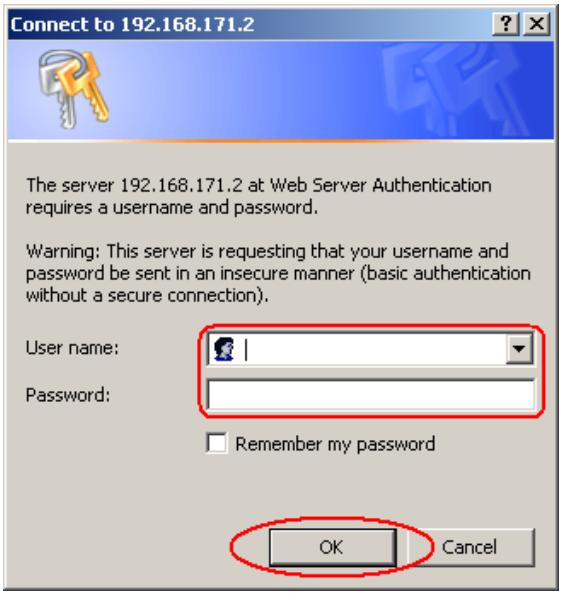
This section will illustrate how to use the Ositech Titan III Gateway device in a real world scenario, in conjunction with a LIFEPAK device. In order to begin, you need to ensure you have the proper credentials to access the wireless network(s) that you intend to join, and as well, you will need your access credentials (Username, Password, and URL) for the LIFENET® System. If you are unsure of your LIFENET System credentials, please contact Technical Support, or your local LIFENET System team. Section 5 of this document details the full operations of the configuration utility in depth for you convenience. It is recommended to have the Ositech Titan III Gateway connected to the LIFEPAK device and powered on during configuration.

For descriptive purposes, this document will refer to all variants of the Ositech Titan III Gateway interchangeably as the Ositech Titan III Gateway. The configuration of all hardware variants is virtually identical; however the differences between them, specifically audio and cellular related are fully documented and illustrated.

To begin; collect the login credentials (SSID, Encryption type, Passkey and Cellular APN, if required) to join the wireless network(s) that will be used at your locations. You will also need your credentials for the LIFENET System.

IMPORTANT NOTE, please use Internet Explorer as your browser when configuring the Ositech Titan III Gateway through the Configuration Utility.

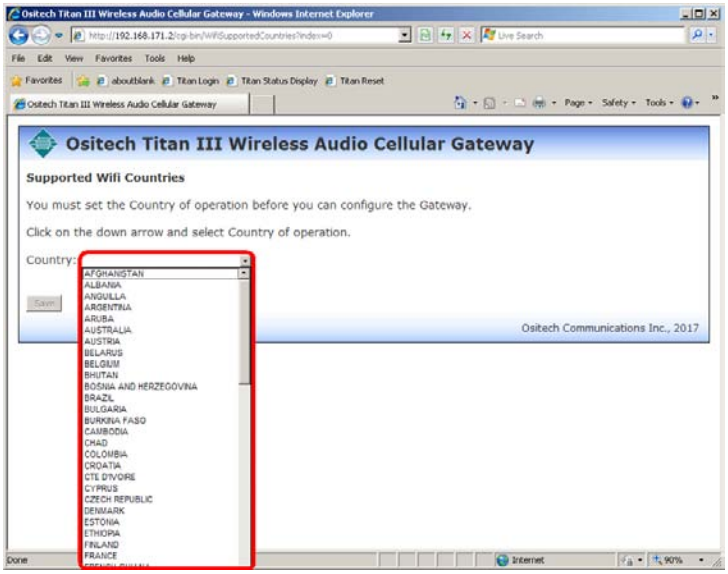
Launch the Ositech Titan III Gateway Configuration Utility, from your Start Menu. Click your Start button, and then choose the program group Ositech Titan III Gateway Configuration Utility, and then select the Ositech Titan III Gateway Configuration Utility. When the configuration utility opens, you must login to the configuration utility. Your default username is "admin" and the accompanying password is also "admin", without the quotation marks. Enter your username and password accordingly, and then click OK to login to your Ositech Titan III Gateway.



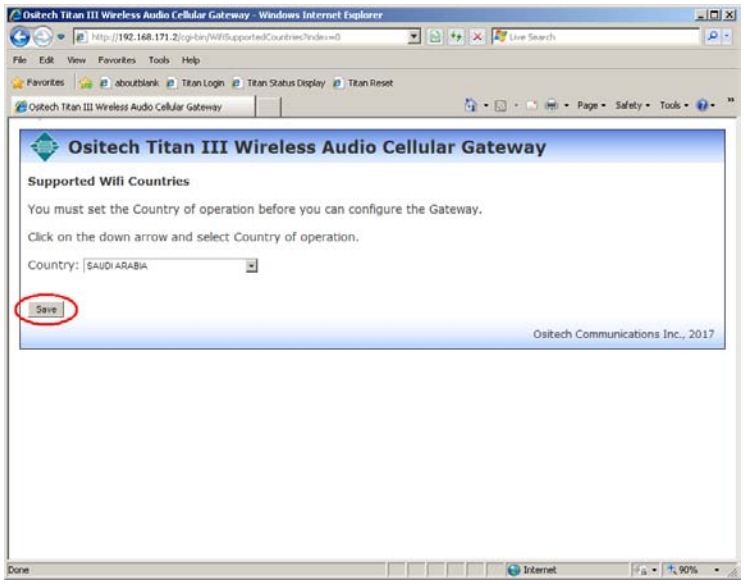
If you are having difficulty accessing the Ositech Titan III Wireless Configuration Utility, please contact Physio-Control, now part of Stryker, Technical Support, or your local LIFENET System team.

Note: To access the Ositech Titan III Gateway Configuration Utility, your system must have Windows Internet Explorer version 7 or higher installed.

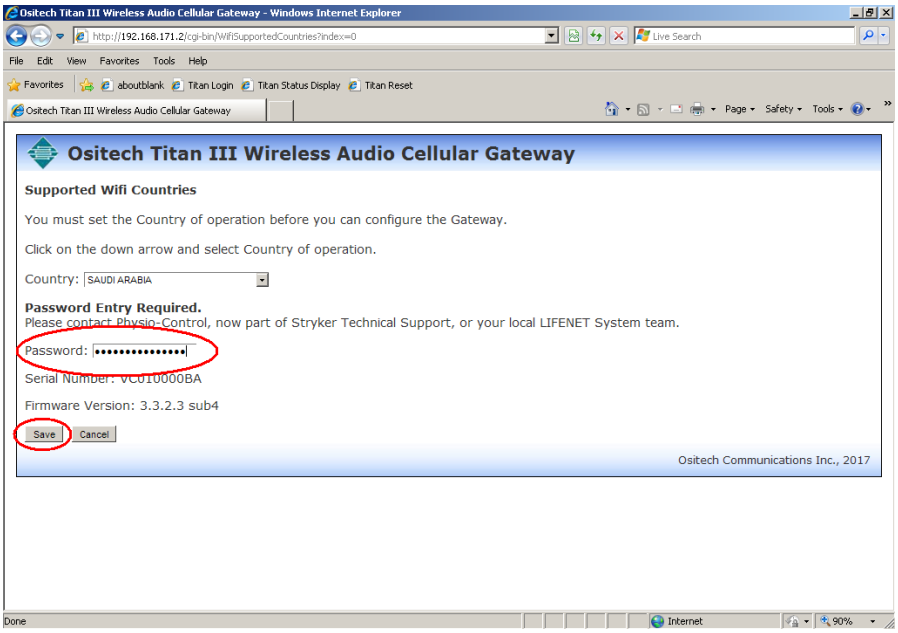
If your Gateway was purchased for use outside of Canada/USA, at this time, you will be prompted to select your Country of operation. Pull down the Country selector, and choose the Country in which the Gateway will be operated from.



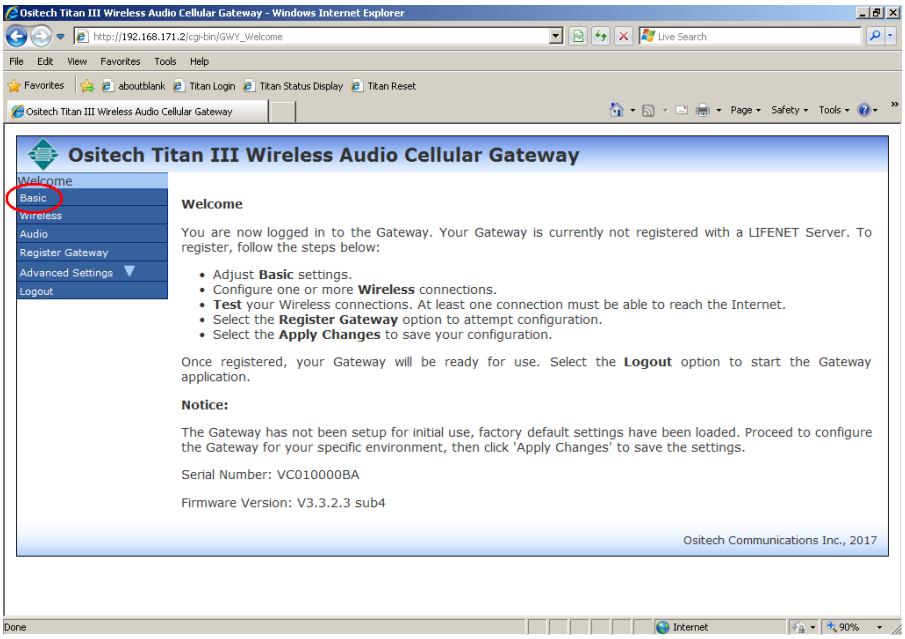
Once you have the selected the Country of operation, click the Save button.



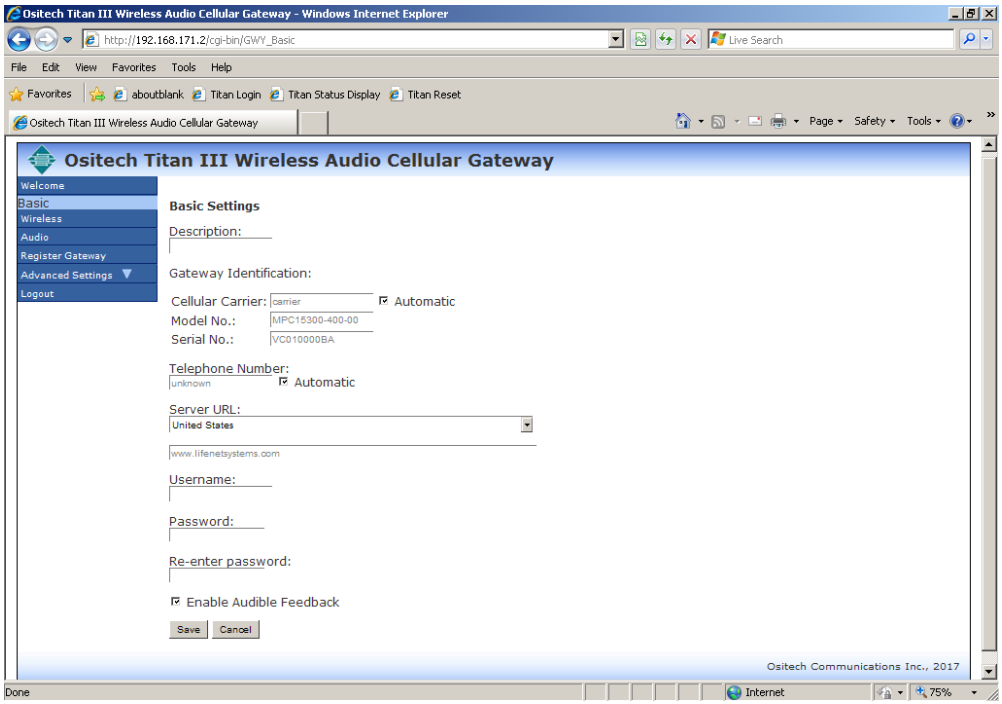
Due to regulatory domain compliance, at this time, a special password is required to finalize the country selection process. Please contact Physio-Control, now part of Stryker, Technical Support, or your local LIFENET team to proceed.



The configuration utility will now appear and the Welcome page will greet you. On the left side of the configuration utility, click Basic, to access the Basic Settings page.



Here, you will enter a Description as a user-friendly name for the Ositech Titan III Gateway, keeping in mind that this field populates the associated column on the LIFENET System. As your Description, make this name unique to identify the location.



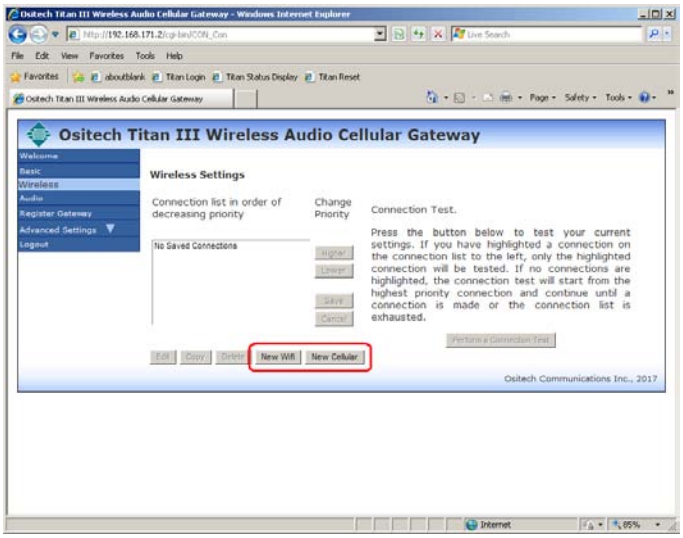
Next, on the Basic Settings page, examine your entries for Gateway Identification. These entries also populate the associated columns on the LIFENET System. The Cellular Carrier or Model No., under most circumstances will auto populate, and should NOT be altered, unless you have a specific reason to do so. For the serial number, you should observe this field matches your bar-coded serial number on your actual Ositech Titan III Gateway.

The next field is the Telephone Number. Under most circumstances, if a cellular connection is present, this field auto populates. As such, this field should NOT be altered unless you have a specific reason to do so.

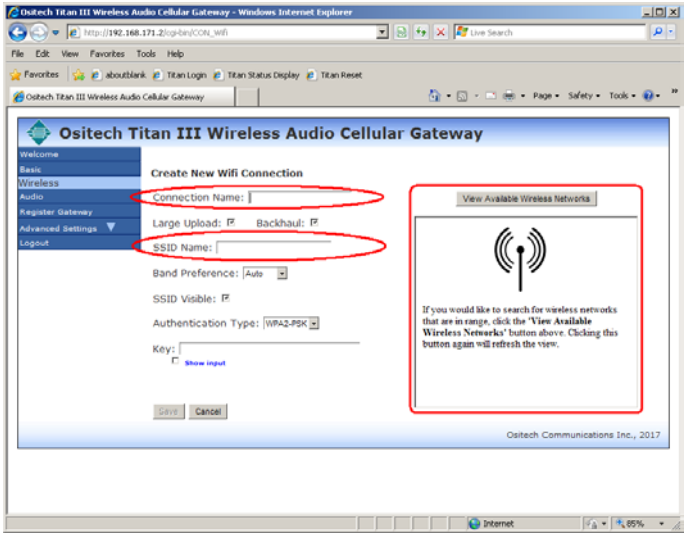
The Server URL field is next. Here, please use the pull down arrow, and select your geographic region and the configuration utility will automatically populate the correct Server URL for you. The default region is United States; however there is also an option for Canada and Europe. In addition, the Other option can be selected to override the URL with one provided from your LIFENET System team, only if you are instructed to do so. Continuing, you need to enter your Username, Password and then Re-Enter your Password accordingly to connect with the LIFENET System. If you are unsure about your Username and/or Password, please contact Technical Support, or your local LIFENET System team.

Finally, you have the option to enable/disable audible feedback tones. By default, audible feedback is enabled such that you can hear audible tones to distinguish the state of your transmission(s).

Next, you need to configure a wireless connection. On the left side of the configuration utility, please select Wireless. At this point, you will need to create a new wireless connection. Click either the New Wifi or New Cellular button, to begin to create your wireless connection custom to your specific needs. Depending on your specific product variant, you may or may not see either the New Wifi or New Cellular button accordingly.



If you have selected to create a New Wifi connection, the New Wifi Connection page will now appear. Enter a user-friendly descriptive name for the Connection Name which allows you to easily identify what this connection is for or its location.



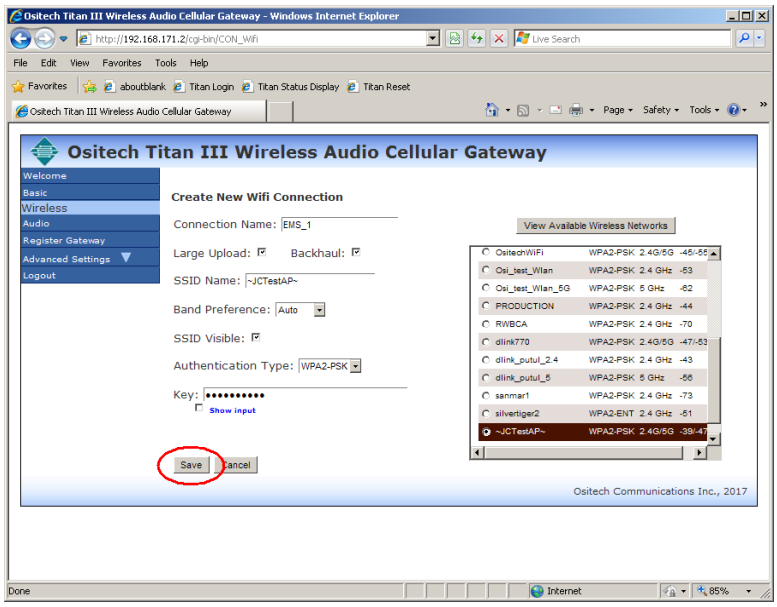
The next step in your Wifi connection configuration is to determine the SSID you wish to join with. If you know the specific name of your appropriate SSID, please enter it now. If, however, you do not know your SSID, but you are within the range of your Wireless Network, you may click "View Available Wireless Networks". This feature will present you a list of Wireless Networks that has been detected within your range. As well, please

note that for each found Wireless Network, you will observe its associated Authentication Type being employed, the Band(s) of the AP, and the signal strength (in -dBm).

You will be presented a list of Wireless Networks (Access Points) in your vicinity. From your list, please select the appropriate Wireless Network you wish to join. Your list will, of course, be different from that illustrated. Note; Open, Shared or Ad-hoc networks are not supported.

Once you have chosen your selected wireless network, you will observe that the SSID name will automatically be inserted now, and the Authentication Type is auto detected and will be reflective of your selected Wifi network.

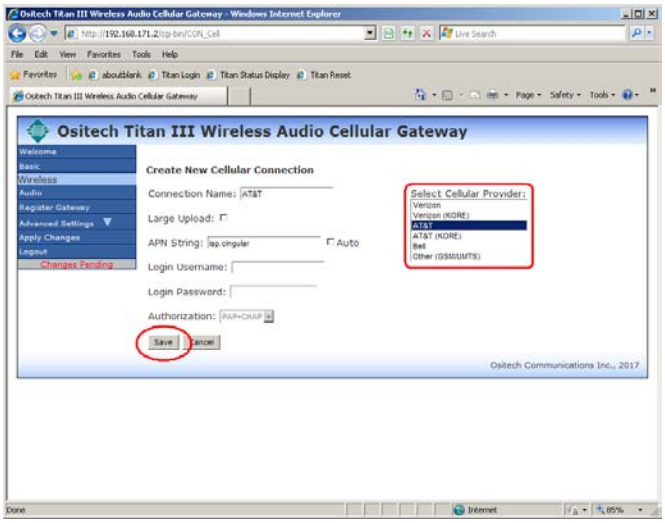
You will now have to enter the appropriate Passkey, if required, for this network. When entering your Key, please keep in mind that you must enter it absolutely correctly without errors.



You are advised to leave the Backhaul and Large Upload options selected as illustrated above, as these are the default selections. The Backhaul option, when selected, performs a backhaul check to verify your internet connection, and should remain selected. Unchecking this option should only be done under the guidance and direction of your local LIFENET System team.

The Large Upload option MUST be selected to support audio recording uploads to the LIFENET System. If this option is deselected, audio recording uploads to the LIFENET System will be disabled for this specific connection only. When complete, click the Save button.

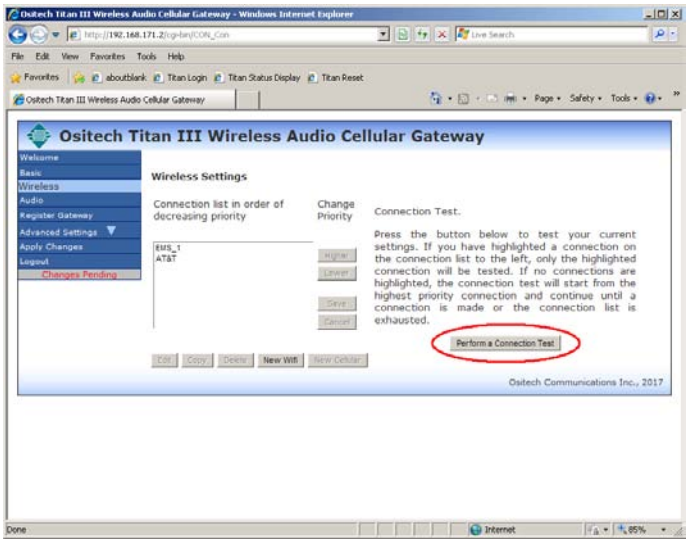
You will now be returned to the Wireless Settings window, which should show your newly created Wifi connection.
Alternatively, if you have selected to create a New Cellular connection, the New Cellular Connection page will now appear. From the Select Cellular Provider pick list, select your appropriate cellular provider for which you have a valid and active data plan. Once you have selected the appropriate cellular provider, click the Save button to proceed.



The Large Upload option MUST be selected to support audio recording uploads to the LIFENET System. If this option is deselected, audio recording uploads to the LIFENET System will be disabled for this specific connection only. This would require you to retransmit the record while connected to a large upload connection in order to send the audio file. When complete, click the Save button.

You will now be returned to the main Wireless Settings page, and you should observe your newly created wireless connections.

You should test your newly created connection(s) to verify overall connectivity. To perform this test, you need to be within range of your Access Point and/or cellular tower accordingly. If you wish to test a particular wireless connection, select which connection to test. To test all the connections, do not select any particular test, and it will begin with the highest priority connection and continue to test all your connections until a valid connection is found or your connection list is exhausted. To proceed with the connection test, click the "Perform a Connection Test" button.

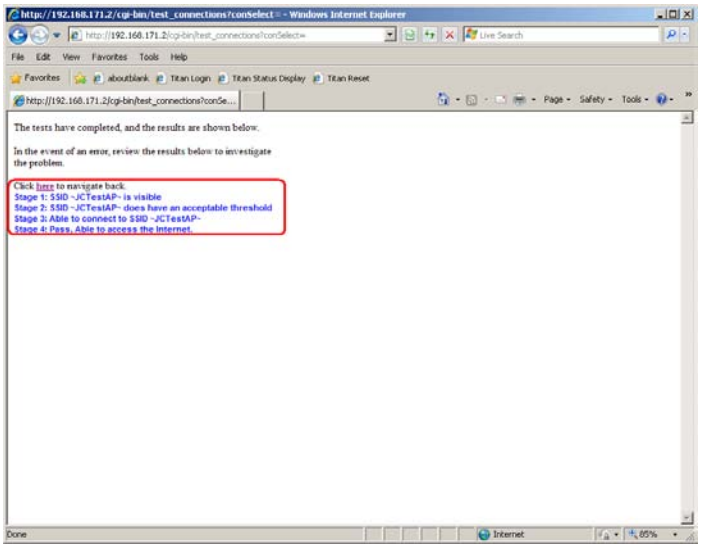


Your Ositech Titan III Gateway will now perform a test with the connection(s) you have just created. Please be patient during the actual test, as this may take a few moments. Once the test has completed, you will observe the results.

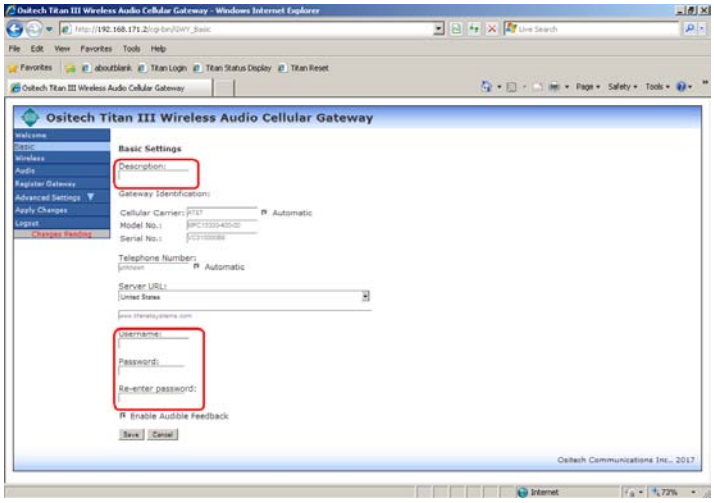
If your connection test has failed, you need to go back and alter your settings accordingly. DO NOT USE YOUR BROWSER'S BACK TO RETURN. Instead, please use the "Click here to navigate back" link. Refer to Appendix E for tips on troubleshooting your

connections, using the results from your connection test as a guideline as to which stage has failed the test.

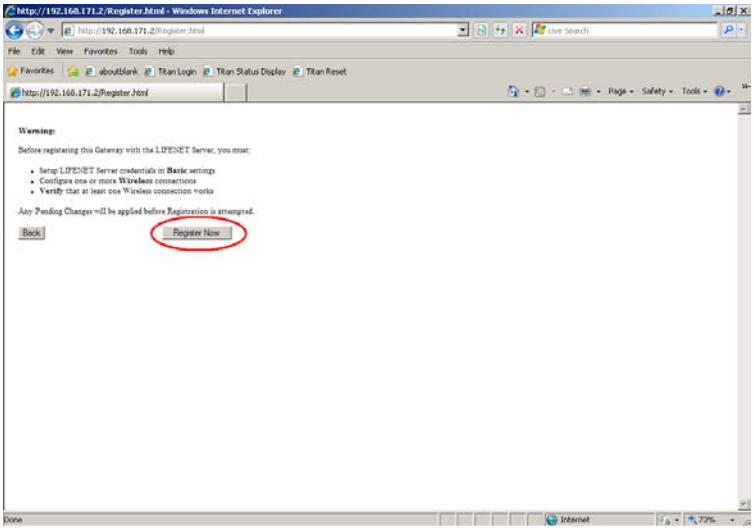
If the tests have completed successfully, you're ready to register your Gateway with the LIFENET System. On your connect test results page, click to navigate back.



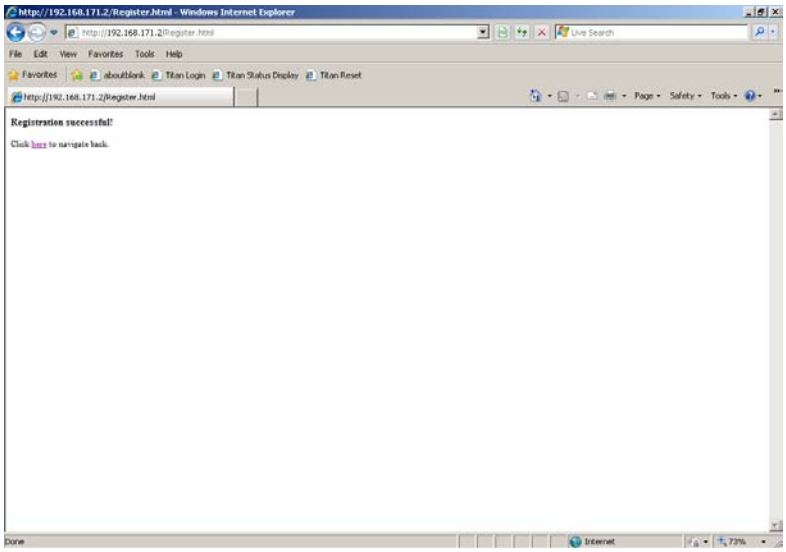
When you have returned to the Wireless Settings page, on the left hand side, click the Basic button. On the Basic page, populate the settings as required for your account on the LIFENET System accordingly. When you have completed entering your specific settings, click the Save button.



At this time, on the left hand side of the Configurator, click the Register Gateway button to begin the registration process with the LIFENET System.



The Gateway will now contact the LIFENET System and proceed with the registration process. Upon successful registration, you will receive confirmation informing you that the registration was successful.



Your Ositech Titan III Gateway is now ready for use. You should now logout of the Configurator and close the browser window and unplug the device. Please refer to the Placement Guide for more details about proper gateway storage.

Prior to commencing a transmission, you need to ensure any sites you have defined within your LIFEPAK device are also configured on the LIFENET System. Please contact Stryker, Technical Support, or your local LIFENET System team to verify the configuration of your LIFENET sites.

Turn on your LIFEPAK device. Very quickly after power up, if audio capable, the Gateway will commence audio recording, and you will hear audible tones emanating from the Gateway indicating audio recording is in progress. On your LIFEPAK device, acquire your 12 lead patient data. Once you have acquired your 12 lead patient data, proceed to the Transmit menu, and select Data as the transmit method. Next, verify the report you wish to transmit, verify the site you are transmitting to, and then press Send to initiate the transmission.

By default, the only Transmission report type that includes support for audio transmission is CONTINUOUS or ALL. This however, can be altered, by deselecting the Upload Audio Continuous Only option in the Advanced Settings area.

Deselecting Upload Audio Continuous Only will permit audio transmissions for any report type that is available on your LIFEPAK device. Use caution when transmitting audio uploads over cellular, as this may exceed your monthly data plan allotment which can result in higher than usual cellular data charges.

During the transmission process, the LIFEPAK device will visually provide you an indication, as a percentage, of the completed transmission. In addition, if you are working with an audio capable unit, when an actual audio upload is in progress, you will audibly hear a monotone beep every 5 seconds, by default. This beep every 5 seconds will continue until the entire audio transmission is complete. When the overall transmission is complete, the LIFEPAK device will indicate Transmission Completed, and the Ositech Titan III Gateway will provide its audible successful transmission tones.

5 TITAN III GATEWAY CONFIGURATION UTILITY

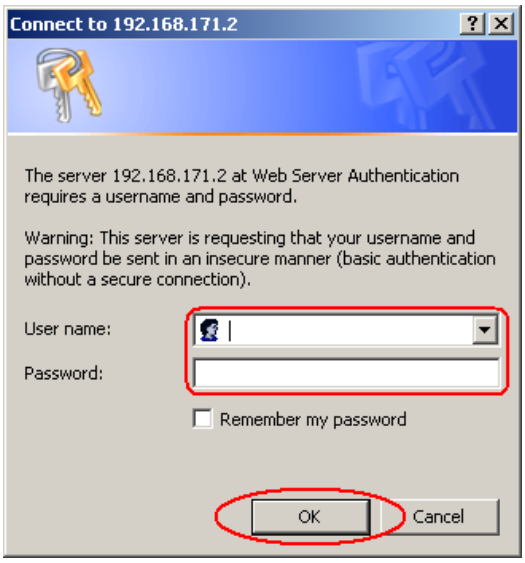
This section describes the Ositech Titan III Gateway Configuration Utility in greater detail. In order to have your Ositech Titan III Gateway functional for operations with your LIFEPAK device, it needs to be configured for your specific connection prior to use. This is accomplished using the Ositech Titan III Gateway Configuration Utility. For illustrative purposes, the Ositech Titan III Wireless Fast Audio Cellular Gateway will be used, since this variant supports all options and features available.

Before you begin, ensure that you have all the connection parameters for any of your potential wireless connections (Wifi or Cellular) handy, as well as your credentials for your account on the LIFENET System. If you are unsure of these settings, please contact your network administrator. Before you begin, please ensure your Ositech Titan III Gateway is connected to your LIFEPAK device for power, and your computer system via the USB cable and that it has been installed properly. It is recommended that you power on Ositech Titan III Gateway with the LIFEPAK device first, and then connect the USB cable to your computer system, as USB power only may not provide sufficient power, especially if the cellular function is active.

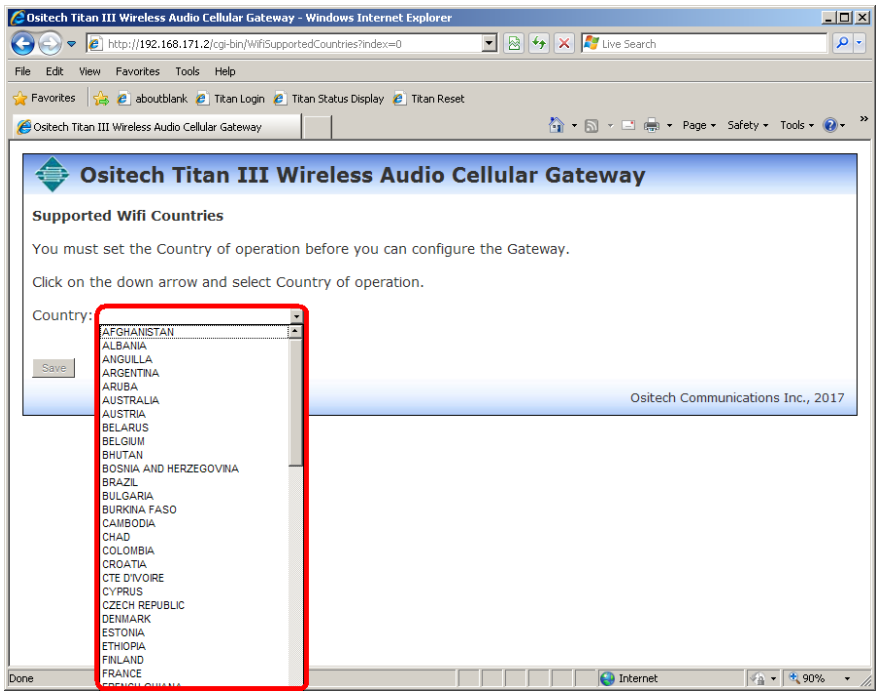
Note: To access the Ositech Titan III Gateway Configuration Utility, your system must have Windows Internet Explorer version 7 or higher installed.

Access to the Ositech Titan III Gateway Configuration Utility is made conveniently through your Start menu system. Click your Start button, and select your Program Files. Within your Program Files, locate folder Ositech Titan III Gateway Configuration Utility. From the Ositech Titan III Gateway Configuration Utility folder, select Ositech Titan III Gateway Configuration Utility. Windows will now launch the configuration utility.

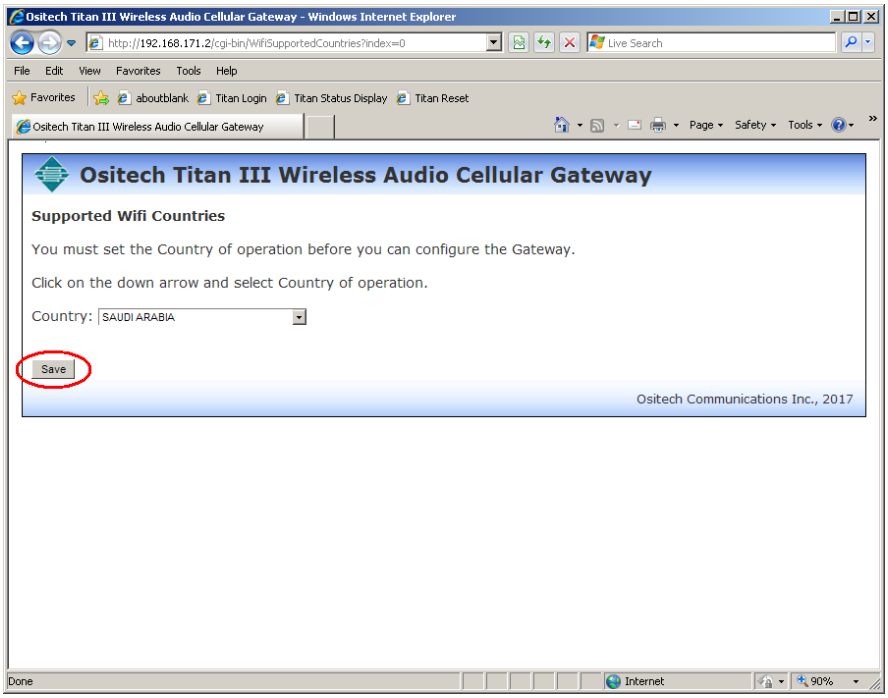
When the configuration utility opens, you must login to the configuration utility. Your default username is "admin" and the accompanying password is also "admin", without the quotation marks. Enter your username and password, and then click OK to login to your Ositech Titan III Gateway.



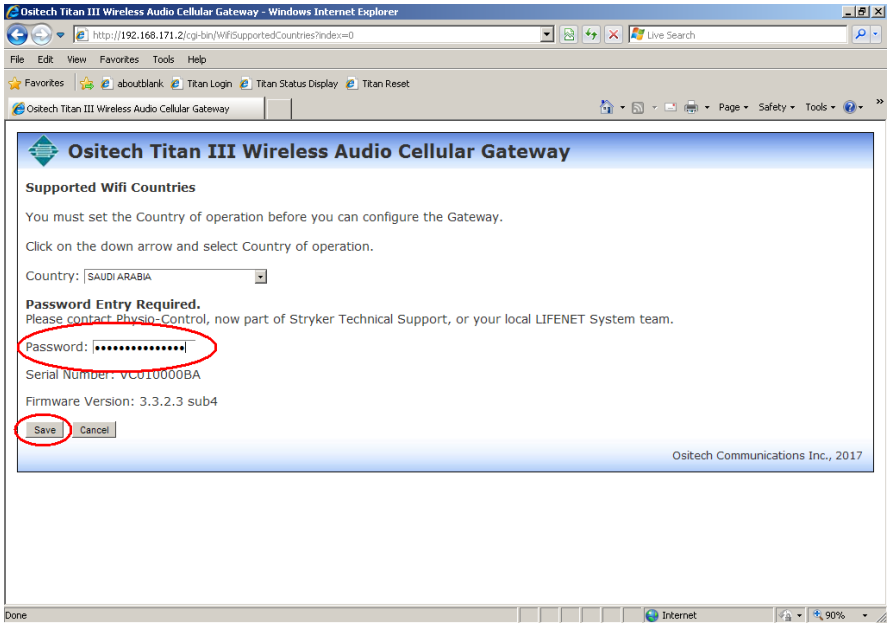
If your Gateway was purchased for use outside of Canada/USA, at this time upon first launch, you will be prompted to select your Country of operation. Pull down the Country selector, and choose the Country in which the Gateway will be operated from.



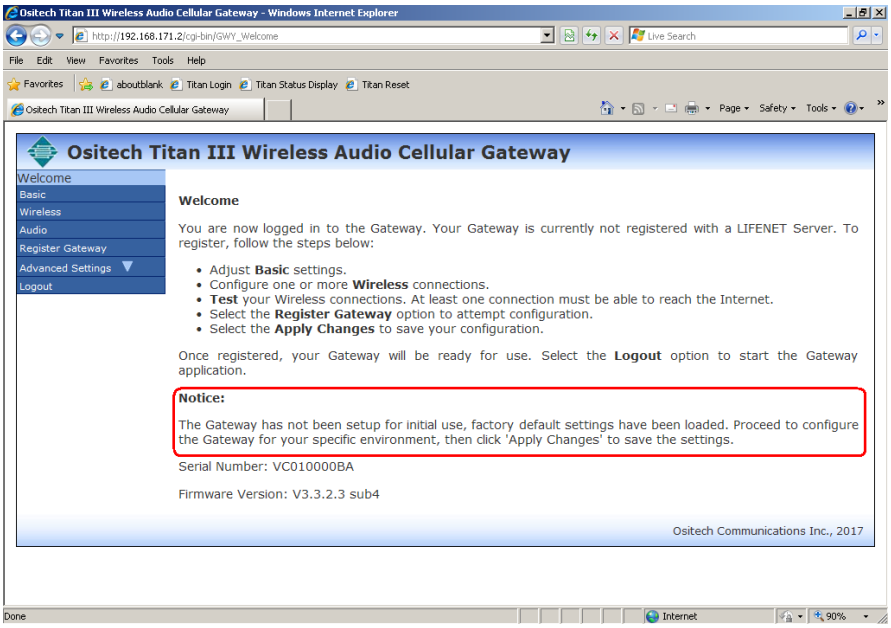
Once you have the selected the Country of operation, click the Save button.



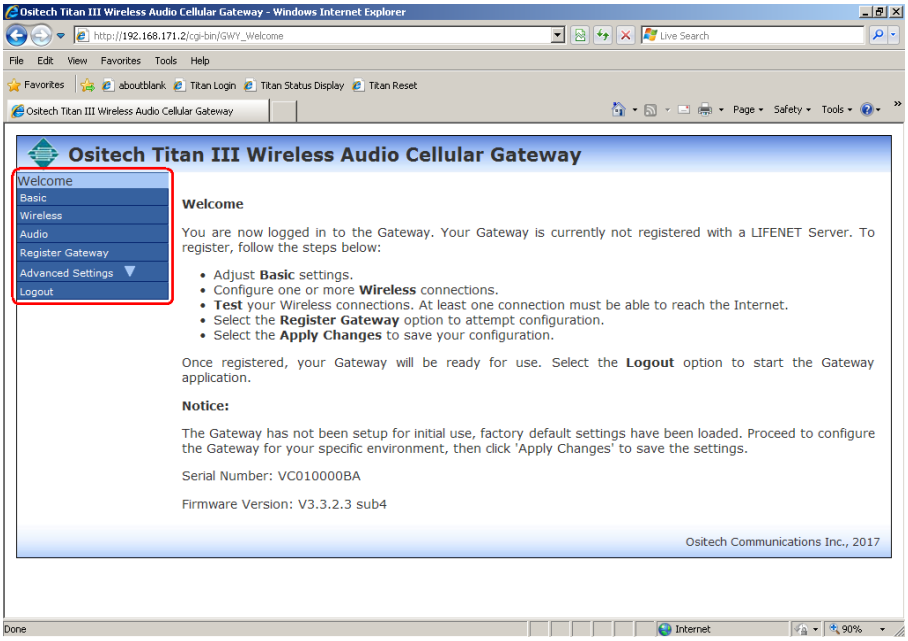
Due to regulatory domain compliance, at this time, a special password is required to finalize the country selection process. Please contact Physio-Control, now part of Stryker, Technical Support, or your local LIFENET team to proceed.



The first time you launch the configuration utility, it will load factory default settings. You will observe the notice "The Gateway has not been setup for initial use, factory default settings have been loaded. Please proceed to configure your Ositech Titan III Gateway for your specific operation environment, and then click "Apply Changes" to save your settings. Once configuration is complete, click the Logout button.



The main Ositech Titan III Gateway Configuration Utility has seven sub areas on the left that are selectable; Welcome, Basic, Wireless, Audio (if audio equipped), Register Gateway, Advanced Settings, and Logout. Whenever you have finished your session with the Configurator, always click to Logout before disconnecting power to your Gateway.



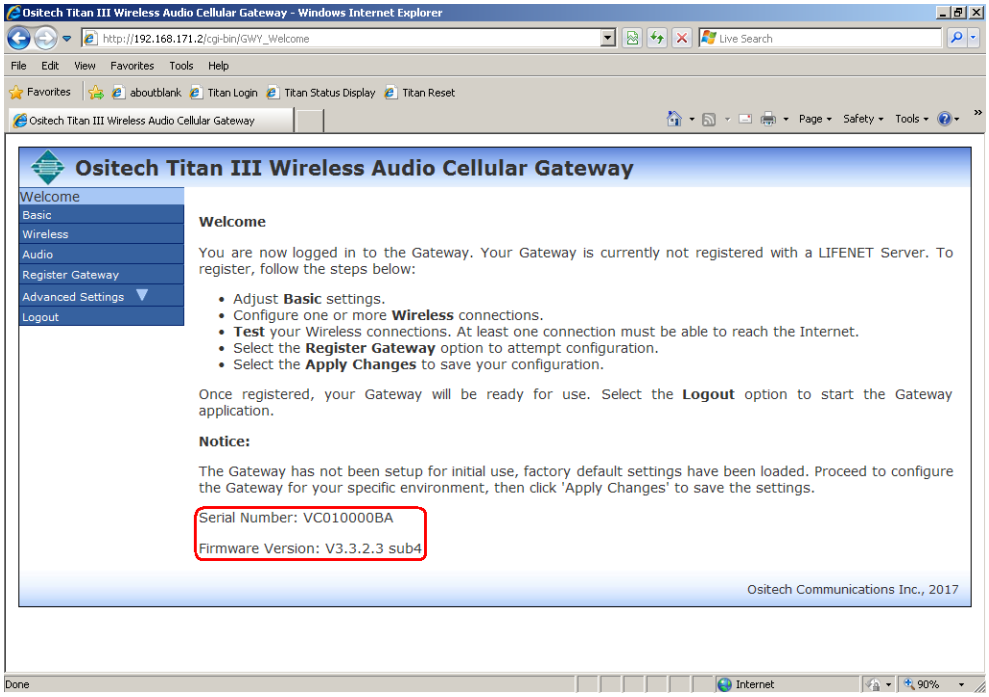
5.1 WELCOME

Whenever you launch the Ositech Titan III Gateway Configuration Utility, it will open to the Welcome screen.

The Welcome screen provides an easy avenue to determine version histories. Here you can view the electronic Serial Number as well as the firmware version of the Ositech Titan III Gateway. This information is useful and necessary should you require or contact Technical Support.

Depending on your hardware variant, the Audio tab will only be present if your hardware supports Audio operations, otherwise this tab will not be visible for the Gateway. For illustrative purposes, the Ositech Titan III Wireless Audio Cellular Gateway is shown below.

From the illustration below, you can determine the electronic Serial Number of the Ositech Titan III Wireless Audio Cellular Gateway is "VC010000BA" and the version of the Gateway firmware is "V3.3.2.3 sub4" (taken from the lower left quadrant of the illustration). Should you require technical support in the future, this information will be required. Your version details may differ from those illustrated below. Please note, since this hardware variant IS audio capable, the Audio tab on the left side of the configuration utility WILL be visible.

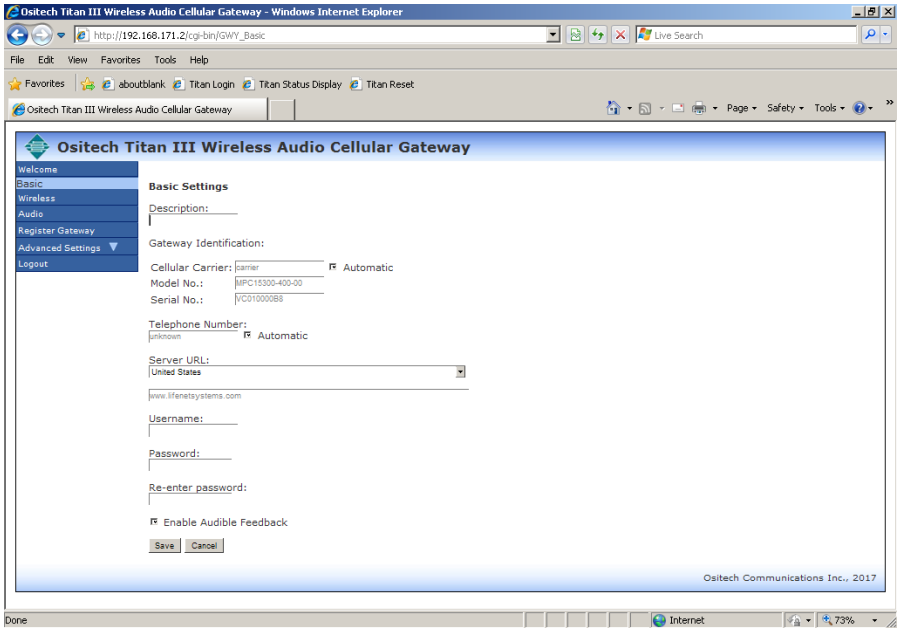


Generally speaking, when entering characters, you should NOT use the following characters:

[ ] = % < > ' " "

5.2 BASIC SETTINGS

To access the Basic Settings, please click Basic, from the left side of the configuration utility, and the Basic Settings options will appear.

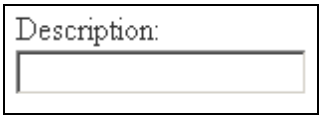


You will now observe the areas that comprise the Basic Settings: Description, Gateway Identification; Cellular Carrier (and its Automatic option), Model No., and Serial No., Telephone Number (and its Automatic option), Server URL pull down option, Username, Password, Re-enter password, and lastly an option to Enable/Disable Audible Feedback.

The Basic Settings configure the Ositech Titan III Gateway for access to the LIFENET System and allow you to populate fields that will be displayed when listing Gateways on the LIFENET System. The contents of the Description, Gateway Identification and Telephone number fields show up under similarly named columns on the LIFENET System. These fields will allow you to uniquely identify your Ositech Titan III Gateway on the LIFENET System. If you have made any changes here, remember to click the Save button, then Apply Changes.

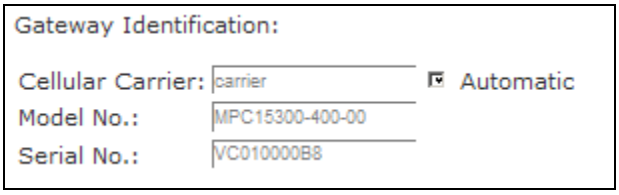
5.2.1 Description

The Description option. This parameter, if specified, will populate the description column on the LIFENET System when listing Gateways. This field is limited to 17 characters in length, and it should be named as descriptively as possible to reflect its operational location. Spaces are permitted for the Description field.



5.2.2 Gateway Identification

The Gateway Identification options. This parameter consists of three parts. These include the Cellular Carrier (and its Automatic option), the Model Number, and your Gateway Serial Number. The Gateway ID is limited to a sum of 76 characters that comprises each of the sub components. Each component will populate the associated column on the LIFENET System when listing Gateways.



5.2.2.1 Cellular Carrier

The Cellular Carrier option. This field is limited to 30 characters in length. The carrier will auto populate when a cellular connection is created. If there is no cellular connection it will default to 'carrier'.

If the gateway does not support cellular the automatic setting is not there and the default value will be 'Wifi'. Please do not alter this value.

5.2.2.2 Model No.

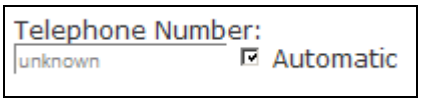
The Model No. option. Its default entry is your actual product number, and is not user adjustable.

5.2.2.3 Serial No.

The Serial No. option. This field contains the unique bar-coded serial number of your Ositech Titan III Gateway. This area is for your reference, and is not user adjustable and as a result, grayed out.

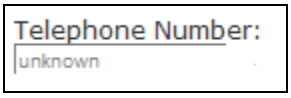
5.2.3 Telephone Number

The Telephone Number options. This entry will populate the phone column on the LIFENET System when listing Gateways. This field should auto populate itself under most conditions.



5.2.3.1 Telephone Number

The Telephone Number option. The telephone number is retrieved from the CDMA radio or the inserted SIM card under most conditions. This field is limited to 89 characters in length.



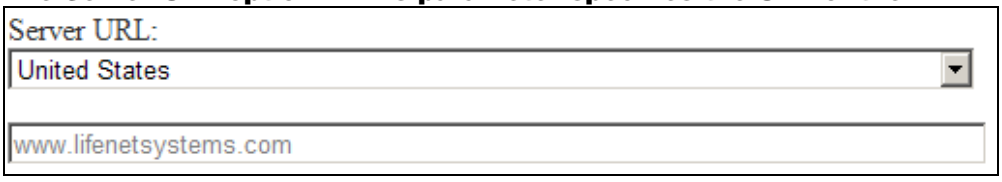
5.2.3.2 Automatic

The Automatic option. If this option is selected, the auto populate is only done when a cellular connection is created. If there is no cellular connection it will revert back to the default value 'unknown'.

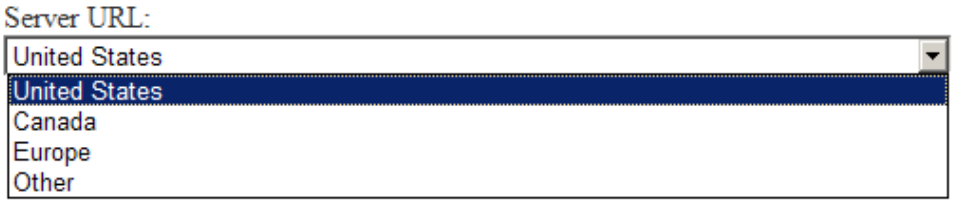
If the gateway does not support cellular the automatic setting is not there and the default value will be 'n/a'.

5.2.4 Server URL

The Server URL option. This parameter specifies the URL of the LIFENET System.

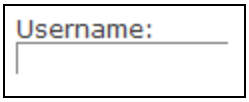


Click the pull down arrow to select your geographic region, and the configuration utility will apply the correct URL for you. By default, the Server URL is for United States users. For United Kingdom and Australia users, please select Canada from the pull down list. However, if you are instructed to enter a specific URL, please select Other from the pull down choices, and then you will be able to enter your specific URL in the box below.



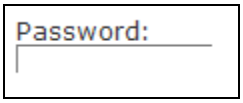
5.2.5 Username

The Username option. This parameter is a user name associated with an account in which the Ositech Titan III Gateway device is to be registered. This is a valid user name used to log into an account on the LIFENET System. This field is limited to 91 characters in length. This value must be entered absolutely correctly.



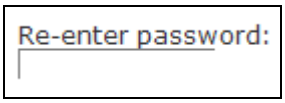
5.2.6 Password

The Password option. This parameter is a corresponding password associated with the username used above. This field is limited to 91 characters in length. Please bear in mind, that as you enter your password, it will be disguised as dots for your security. This value must be entered absolutely correctly.



5.2.7 Re-enter Password

The Re-enter Password option. This parameter is a check to verify your corresponding password associated with the username used above. This field is limited to 91 characters in length. Please bear in mind, that as you enter your password, it will be disguised as dots for your security. This value must be entered absolutely correctly and must match your password entered previously.



5.2.8 Enable Audible Feedback

The Enable Audible Feedback option. This option will either enable or disable audible feedback from your Ositech Titan III Gateway. By default, this option is checked to Enable Audible Feedback, however if you wish to disable audible feedback, please uncheck this option. If you have the audible feedback feature enabled, you will then hear audible feedback beeps upon various conditions; Success, Failure, Error, and Audio Upload In Progress.

You cannot, however, disable the audio recording started tone.

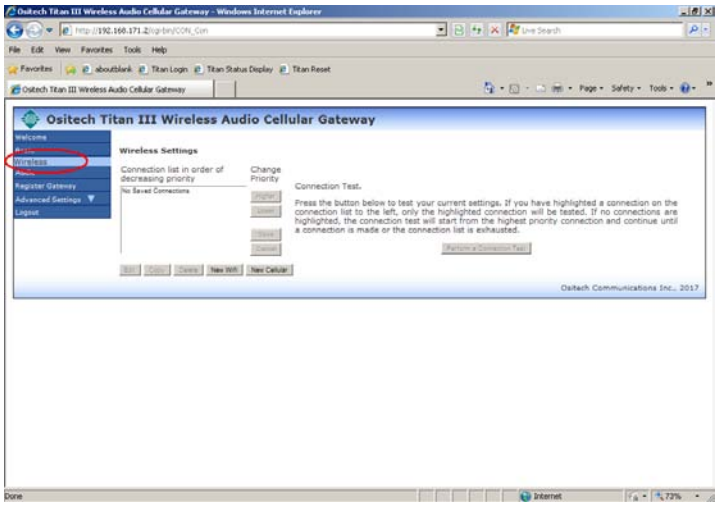
If you have achieved a successful transmission, you will hear two high toned beeps followed by two low toned beeps, as a signal of your success. This sequence will repeat five times. If you have an unsuccessful transmission attempt, you will then hear a series of three slow monotone beeps, as your indication of the failed transmission attempt. If however, your Ositech Titan III Gateway is NOT registered with the LIFENET System, you will hear a series of ten fast monotone beeps. Lastly, when an audio recording has commenced, you will hear two fast monotone beeps followed by a half second pause and then another two fast monotone beeps.

If you have audible feedback disabled, then you will not hear any audible alerts whatsoever, however this does NOT include the audio recording started tone. With audible feedback disabled, this option does NOT affect actual audio transmission uploads to the LIFENET System. With audible feedback disabled, you MUST rely on the LIFEPAK device display for the status indication of the overall transmission. This is only applicable to an audio recording equipped Gateway.

5.3 WIRELESS SETTINGS

To access the Wireless Settings options, on the left side of the configuration utility, select Wireless Settings. You will now observe the Connection options that comprise the Wireless Settings.

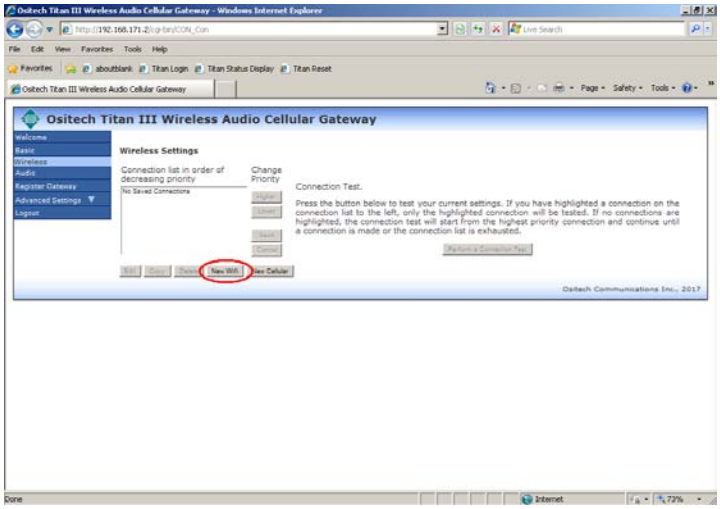
The Wireless Settings are a local function on the Ositech Titan III Gateway. These settings will determine how the Ositech Titan III Gateway will connect to the Internet to allow communications with the LIFENET System.



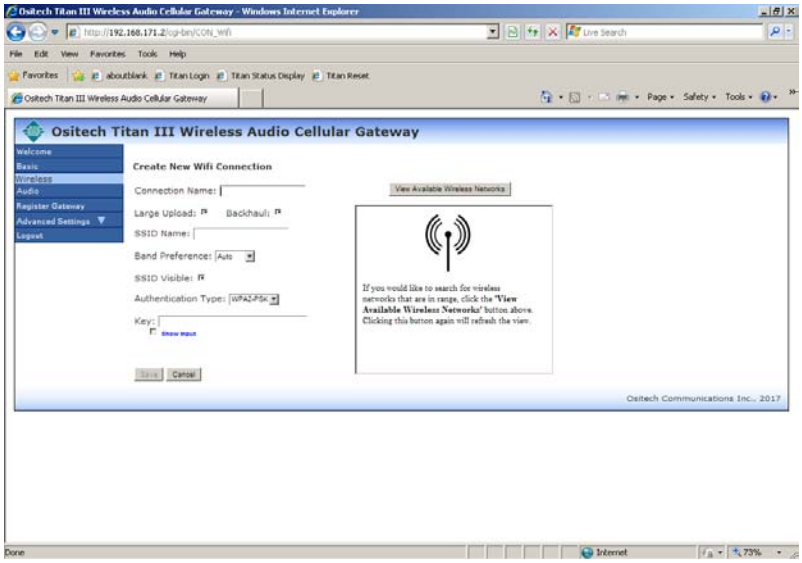
5.3.1 CONNECTIONS

5.3.1.1 New Wifi Connection

If you wish to create a New Wifi connection, please click the New Wifi button. Note, a maximum of 254 Wifi connections can be created.

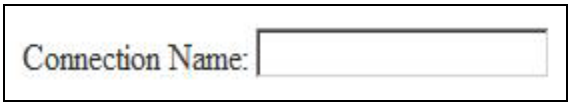


The Create New Wifi Connection dialog will now appear. As part of your New Wifi Connection, the following fields comprise this connection. These include the Connection Name, Large Upload enabling, Backhaul Check, SSID Name, Band Preference, SSID Visibility, Authentication Type, and an area to click to View Available Wireless Networks that are in your immediate range.



5.3.1.1.1 Connection Name

The Connection Name. This field is used to name and describe your connection. This field is limited to 48 characters in length. It is recommended that you give the connection name a descriptive title representative of its location or environment. The following characters are not permitted for use in the connection name; = [ ] ‘ % <space> The semicolon ; can never be used as the first character.



5.3.1.1.2 Large Upload

The Large Upload option allows either enabling audio transmissions or disabling this feature. This option does NOT affect ECG transmissions. By default, this option should be checked, to allow large uploads such as audio transmissions. If this option is deselected, audio recording uploads to the LIFENET System will be disabled for this specific connection only. This feature is useful if you have an Access Point that employs a cellular backhaul which is not suitable for large audio file uploads. This feature should be enabled for Access Points that are hard wired and stable and meet the minimum communication requirements as outlined in the Communication Requirements for Audio Operation Appendix.

5.3.1.1.3 Backhaul

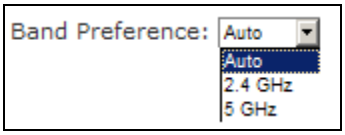
The Backhaul option allows you to either enable the Backhaul check or disable this feature. By default, this option should be checked, to verify your backhaul connection. This feature performs a backhaul check to verify your internet connection, and should remain selected. Unchecking this option should only be done under the guidance and direction of your local LIFENET System team.

5.3.1.1.4 SSID Name

The SSID Name. This area is used to identify your SSID. This field is limited to 48 characters in length.

5.3.1.1.5 Band Preference

The Band Preference feature allows you select the Band of your choice. The default is Auto; however you may also select 2.4 GHz or 5 GHz to force the appropriate band.



5.3.1.1.6 SSID Visible

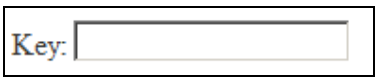
This field will typically be checked as most 802.11 Wireless Networks (Access Points) are visible. In cases where the Wireless Network (Access Point) is not visible, uncheck this option. Unchecking this option, if there are many Wireless Networks that are not visible, can slow down how fast the Gateway can establish a connection.

5.3.1.1.7 Authentication Type

The Authentication Type. This pull down list allows you to select which authentication method is being employed by the access point you wish to join. If you are unsure as to which authentication type is being used in your situation, please contact your I.T. department for further instructions. The options available to select include WEP, WPA-PSK, WPA2-PSK, WPA-ENT and WPA2-ENT. If, however, you have selected your Access Point from the results of the View Available Wireless Networks feature, the Authentication Type will auto populate this choice for you.

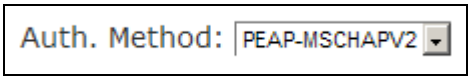
5.3.1.1.8 Key

If the Authentication Type is set to WEP, WPA-PSK or WPA2-PSK, the Key field will also be required. The Ositech Titan III Gateway automatically handles key values; just enter the key as required by the associated Wireless Network. Note, any spaces at the end of key are ignored; hence passkeys that end with a space are not permitted.



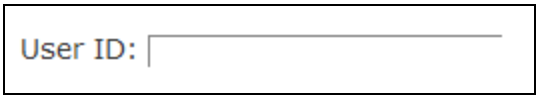
5.3.1.1.9 Auth. Method

If the Authentication Type is set to WPA-ENT or WPA2-ENT, the Auth. Method field will become present. The default Auth. Method is PEAP-MSCHAPV2 and is not user alterable.



5.3.1.1.10 User ID

If the Authentication Type is selected to be WPA-ENT or WPA2-ENT, the User ID field will become present. Enter the User ID of your Enterprise network here.



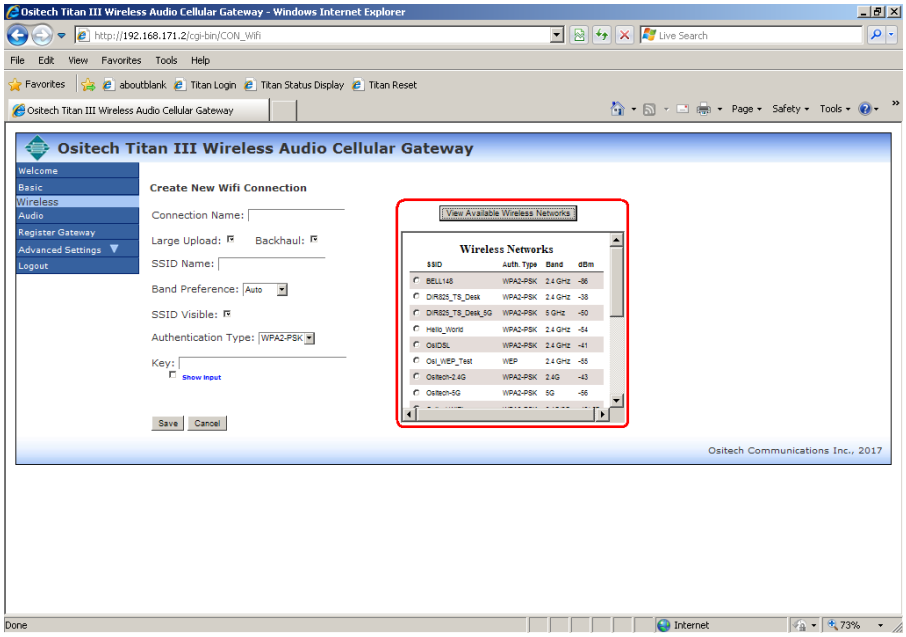
5.3.1.1.11 Password

If the Authentication Type is selected to be WPA-ENT or WPA2-ENT, the Password field will become present. Enter the Password of your Enterprise network here. There is also a check box here to Show input of your password in plain text, if you wish.

5.3.1.1.12 View Available Wireless Networks

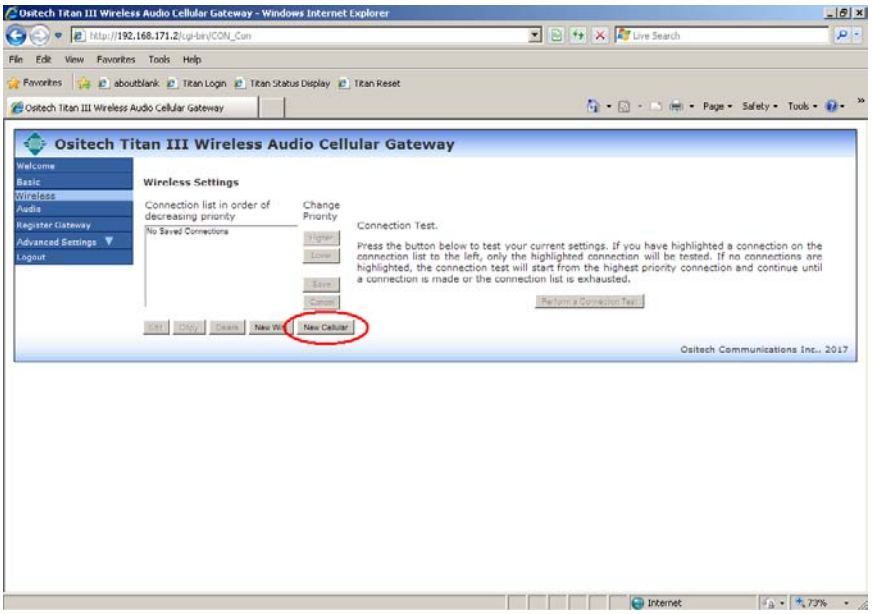
Clicking this button will display a list of wireless networks in your vicinity. This feature is only useful if you are currently within the range of the wireless network(s) you wish the Ositech Titan III Gateway to be configured to use. This feature has been added to allow the user to display what wireless networks are visible to the Ositech Titan III Gateway for debugging purposes or in cases where the Ositech Titan III Gateway is in the vicinity of the wireless network to be configured.

From the list of wireless networks that is displayed, please select the wireless network you wish to connect to. Once you have made your selection, the SSID Name will now be that of your selected wireless network. In addition, the Authentication Type will be auto detected and auto populated for your convenience. Note; Open, Shared or Ad-hoc networks are not supported.

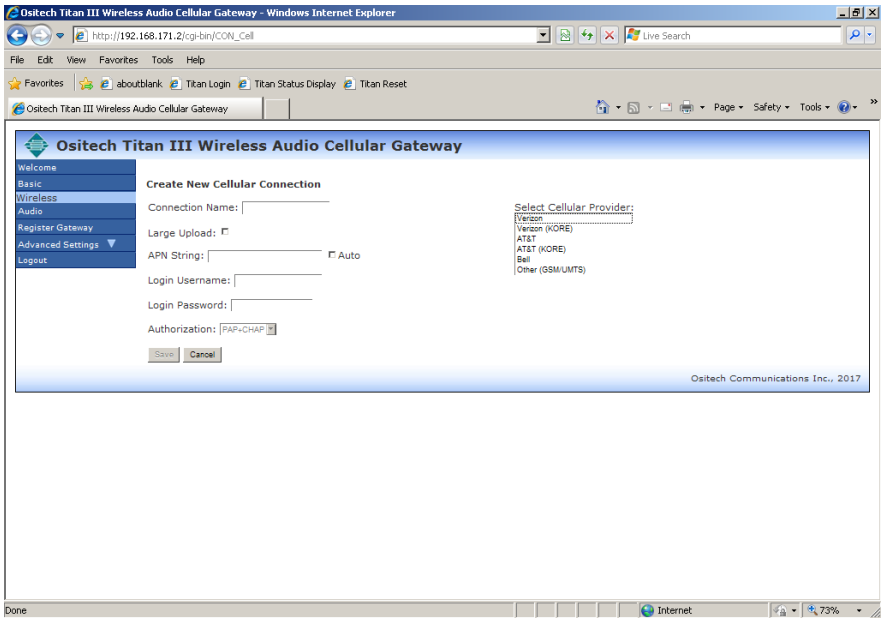


5.3.1.2 New Cellular Connection

If you wish to create a New Cellular connection, please click the New Cellular button. Note, only ONE cellular connection can be created.

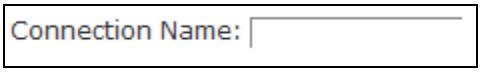


The Create New Cellular Connection dialog will now appear. As part of your New Cellular Connection, the following fields comprise this connection. These include the Connection Name, Large Upload option, the APN String along with its Auto option, Login Username, Login Password, and the Authorization (for VPN connections only), and an area to Select Cellular Provider. When creating a new cellular connection, always choose a Cellular Provider first, and then the fields can be customized, if required.



5.3.1.2.1 Connection Name

The Connection Name. This field is used to name and describe your connection. It is not recommended to change this name, since it already provides an accurate and descriptive title representative of the cellular provider. This field is limited to 48 characters in length. The following characters are not permitted for use in the connection name; = [ ] ‘ % <space> The semicolon ; can never be used as the first character.



5.3.1.2.2 Large Upload

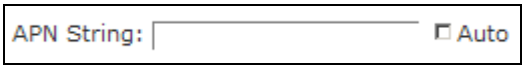
The Large Upload option allows you to permit audio file uploads over your cellular connection. Proceed with caution when enabling this feature. Please be aware, enabling this option will increase your cellular transmission bandwidth and may result in data charges that may exceed your data plan.

5.3.1.2.3 APN String

The APN String option allows you to specify your cellular service provider’s Access Point Name parameter if required to make a connection to its cellular network. This field is limited to any 64 keyboard characters. If you select a service provider that requires an APN this field is automatically populated. If the APN is unknown, the APN populated will be ‘REQUIRES APN STRING’. This must be changed as required or blanked out.

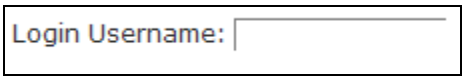
5.3.1.2.4 APN String Auto

The APN String Auto option allows you to specify whether or not you wish to use the stored APN String in your SIM Card. Not all SIM Cards support this feature, please check with your cellular service provider if wish to enable this feature.



5.3.1.2.5 Login Username

The Login Username option allows you to specify a Login Username if your cellular service provider requires this parameter in order to make a connection to its cellular network. It is usually required for a VPN type connection. This field is limited to any 64 keyboard characters.



5.3.1.2.6 Login Password

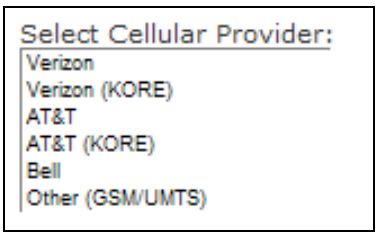
The Login Password option allows you to specify a Login Password if your cellular service provider requires this parameter in order to make a connection to its cellular network. It is usually required for a VPN type connection. This field is limited to any 64 keyboard characters.

5.3.1.2.7 Authorization

The Authorization option allows you to select your VPN Authorization type. You may select either PAP, CHAP or PAP+CHAP. However, in order to activate the Authorization option to enable a VPN connection, you MUST also specify your username and password accordingly.

5.3.1.2.8 Select Cellular Provider

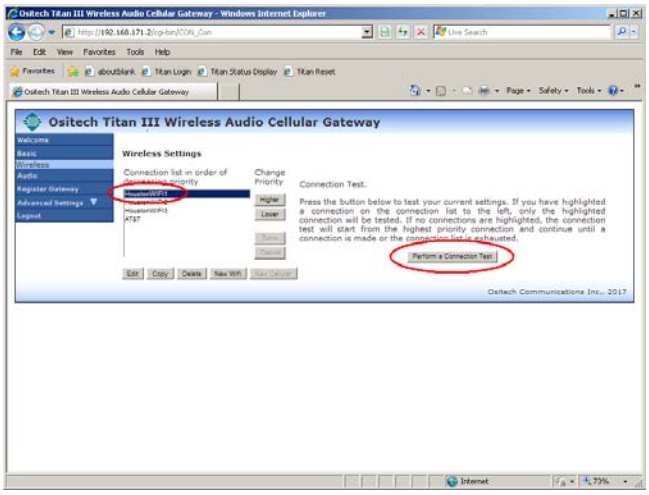
This box contains a list of the user selectable cellular service providers. From this list, you MUST first select the cellular service provider of your choice; this is not optional. Selecting the cellular provider of your choice will load the appropriate cellular profile and credentials accordingly for your cellular provider.



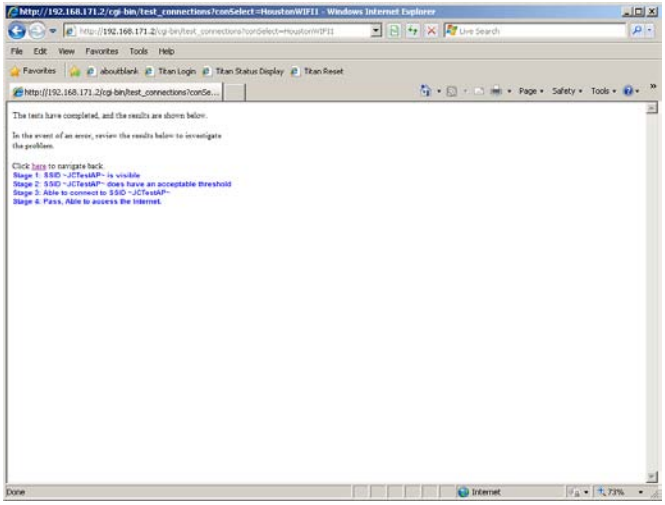
Remember, after you have completed configuring your new cellular connection, click the Save button, and then Apply Changes.

5.3.1.3 Connection Test

Once you have created at least one or more connections, you can now perform a live connection test to determine if your connection(s) are indeed functional to the Internet. In order to perform a connection test, you may either select a specific connection from your list of connections that you have created, or do not select any specific connection in order to test your overall connections list. If no specific connection is selected, the test will start with the connection from the top of the list (highest priority) and continue to test until the last entry on the list (lowest priority) or until a successful connection is made. In addition, re-selecting a highlighted connection will unselect (un-highlight) the selection. Click the "Perform a Connection Test" button to begin. Please be patient during the test, as this may take a few moments to complete, depending on your selection or list of connections.



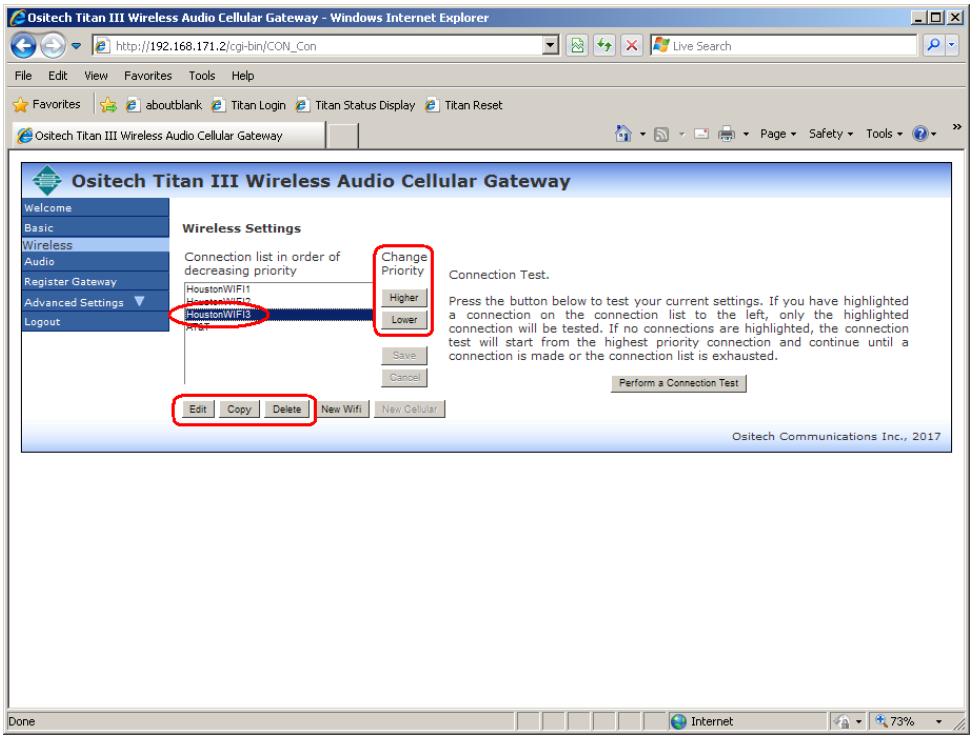
Once the test has completed, you will be shown a summary screen that will show you the detailed results of the various stages of the connection test. In addition, you will observe an option to navigate back to the configuration utility, and when you're ready, click here to navigate back. DO NOT USE YOUR BROWSER'S BACK BUTTON TO RETURN. Instead, please use the "Click here to navigate back". See Appendix E for more complete details regarding a failed test.



5.3.1.4 Connection Management

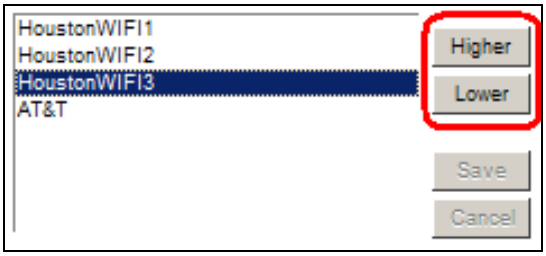
When you have two or more Wireless Network connections, you may need to manage these connections. The connections listed below are merely illustrations, as your connections listed are probably different.

In order to manage your connections, please select a connection you wish to manage. You will now be able to prioritize your connections, and/or edit, delete, copy or create a new connection.

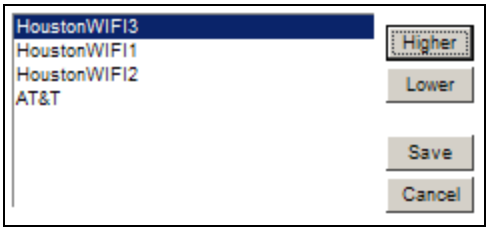


5.3.1.4.1 Connection Prioritization

If you have multiple connections, and you choose to prioritize them, simply select which connection you wish to prioritize. Now, either click the "Higher" button to increase the priority, or click "Lower" to decrease its priority. This feature is important if you have connections available within the same vicinity, but you only wish to join with a select connection. Prioritizing your connections will permit you to customize the order in which you connect to wireless networks.



Now, you will observe the connection titled "HoustonWIFI3", reprioritized to be the first connection to be attempted, should the wireless network be in range.

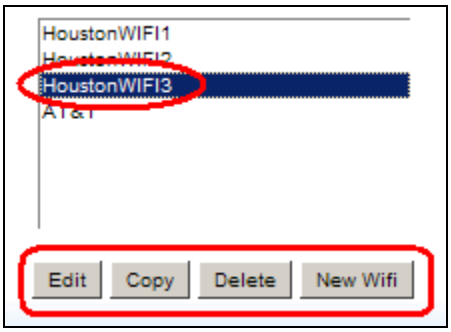


Always remember to click the Save button, after you make your changes. Then, once ALL your changes have been made, click Apply Changes (from left side options) to apply these to your Ositech Titan III Gateway.

5.3.1.4.2 Connection Manipulation

Once you have created a connection(s), you may need to manipulate these from time to time. Such options to manipulate your connections include the options to Edit a connection, Copy a connection to a new connection, Delete a current connection, or create a New connection.

Before you manipulate any of your connections, you must first select which connection you wish to manipulate.

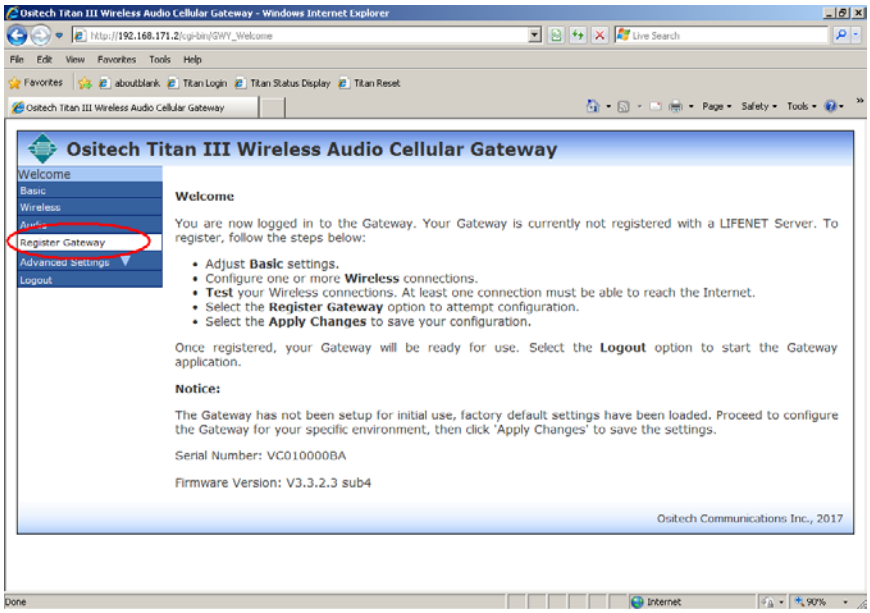


Once you have selected which connection you wish to manipulate, you now have the option to either click the Edit button to edit the details of this connection, or click Copy and this will create a copy of the existing selected connection, or click Delete to remove the selected connection from your list, or lastly, Click New to create a new connection.

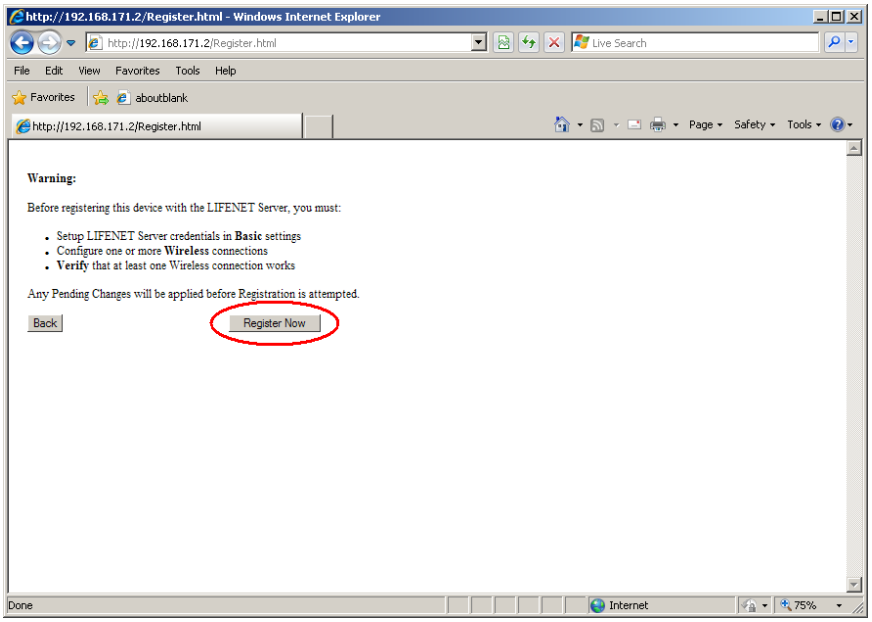
Always remember to click the Save button, after you make your changes. Then, once ALL your changes have been made, click Apply Changes (from left side options) to apply these to your Ositech Titan III Gateway. If you do make changes to any of your connections, it is advised that you test each to ensure they are fully functional.

5.4 REGISTER DEVICE

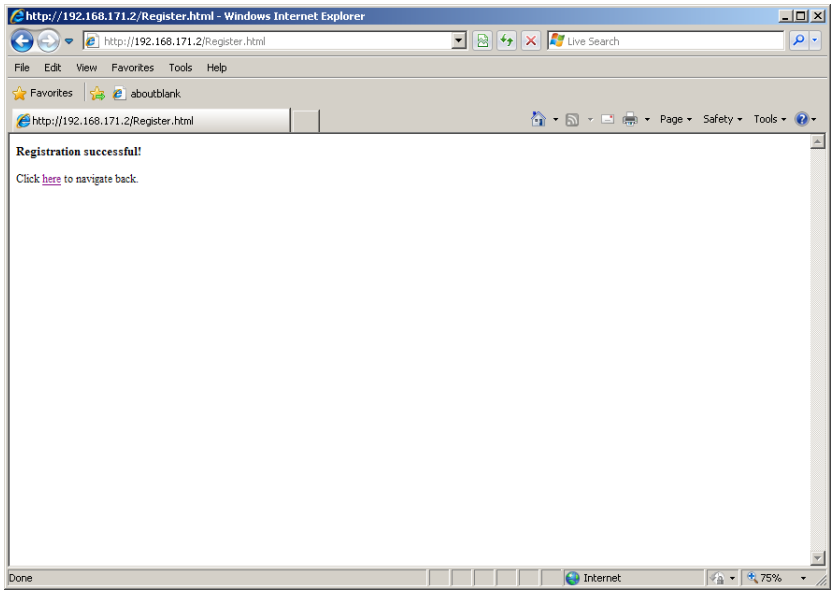
The Ositech Titan III Gateway must be registered with the LIFENET System in order to proceed with any real world transmissions. On the left side of the configuration utility, select Register Device to continue. Once registration has completed successfully, this option changes to Unregister Device. In order to register, you MUST have a valid LIFENET account defined on the Basic page.



To proceed with the registration process, click the Register Now button.

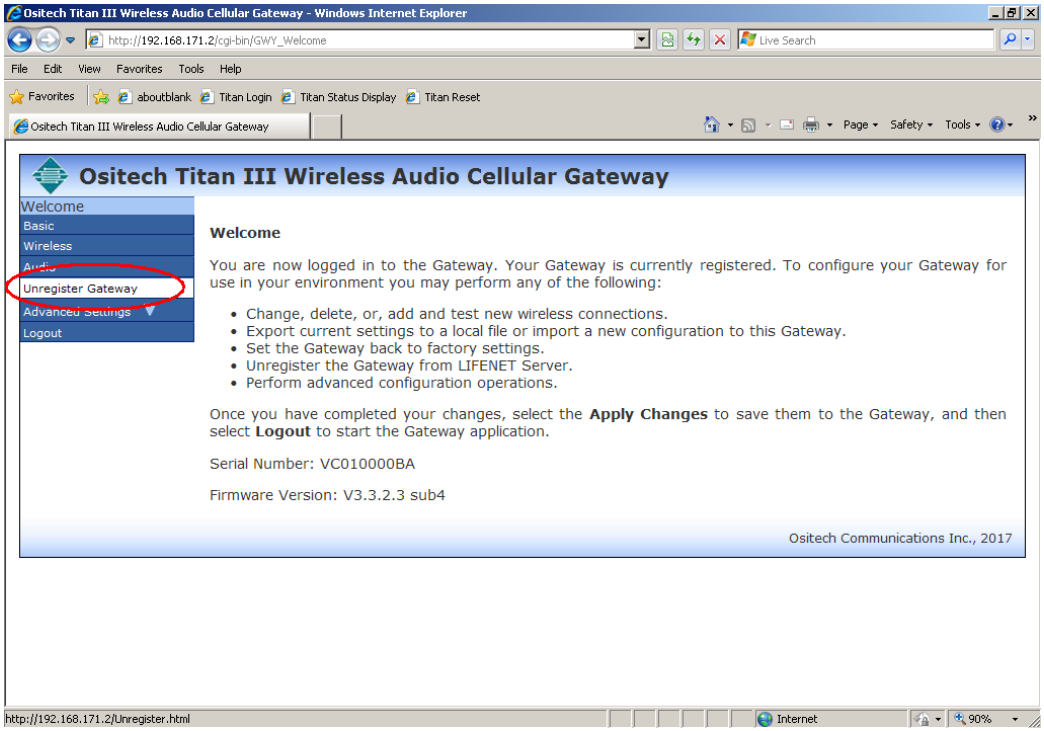


You will be advised that your registration attempt has been successful. As a result, your Gateway is now fully ready for operations with your LIFEPAK device for transmissions to the LIFENET System.

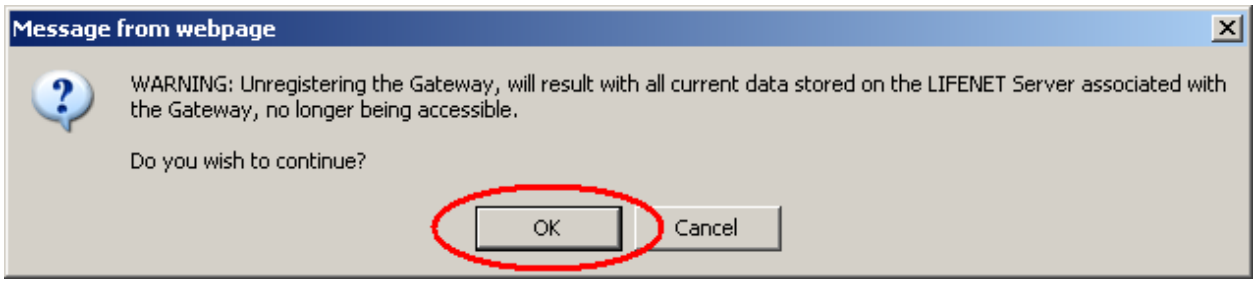


5.4.1 UNREGISTER DEVICE

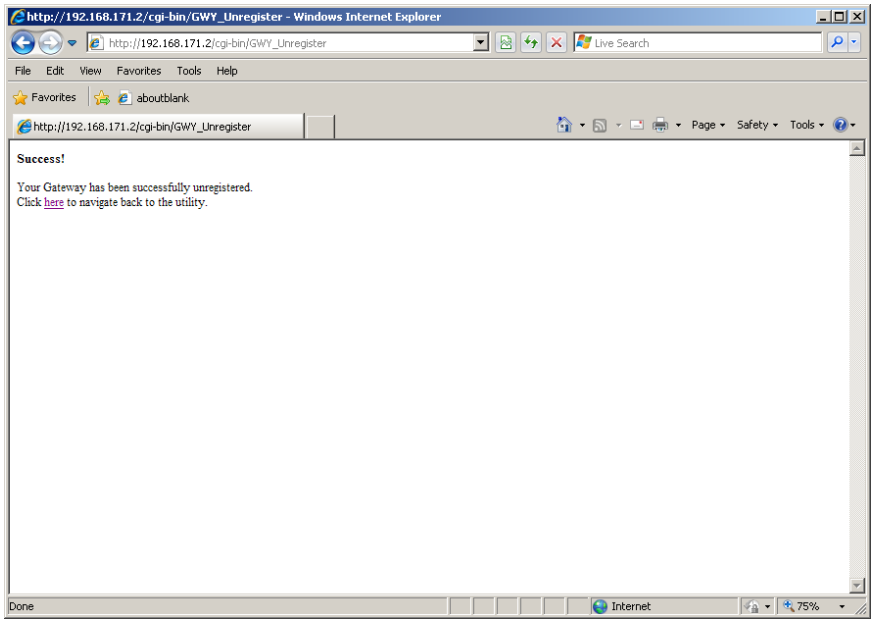
This option will only exist, if the Gateway is currently registered. If you select Unregister Device, this feature will send the Unregister Device command to the LIFENET System. This command will remove your Ositech Titan III Gateway from the list of available Gateways on the LIFENET System. Click the Unregister Device button, to initiate this process.



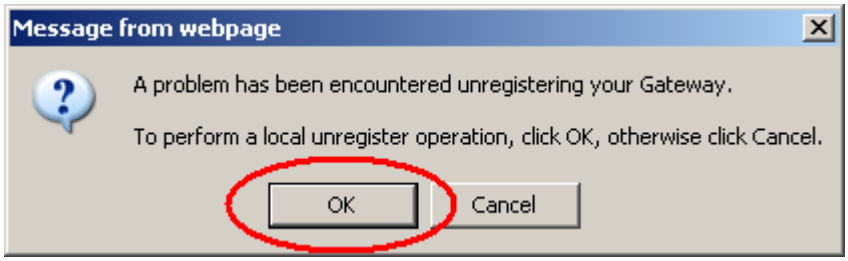
At this point, you are now prompted to confirm you wish to Unregister the Gateway. Click OK to Unregister your Ositech Titan III Gateway. In order to proceed, you must have a valid connection to the LIFENET System.



You will now be advised that your Ositech Titan III Gateway device has been successfully unregistered from the LIFENET System. Please be advised, that your Gateway device will NOT re-register itself the next time it is used to attempt to send a transmission to the LIFENET System, or perform a connection test.



Alternatively, if you have selected to Unregister Device, but you do not have a valid Internet connection, only a local Unregistration will be performed, and your registration with the LIFENET System will be maintained.



After the local Unregistration process has completed, you will be returned to the Basic Settings page once again. Please be aware, you need to be fully registered with the LIFENET System, in order to perform transmissions.

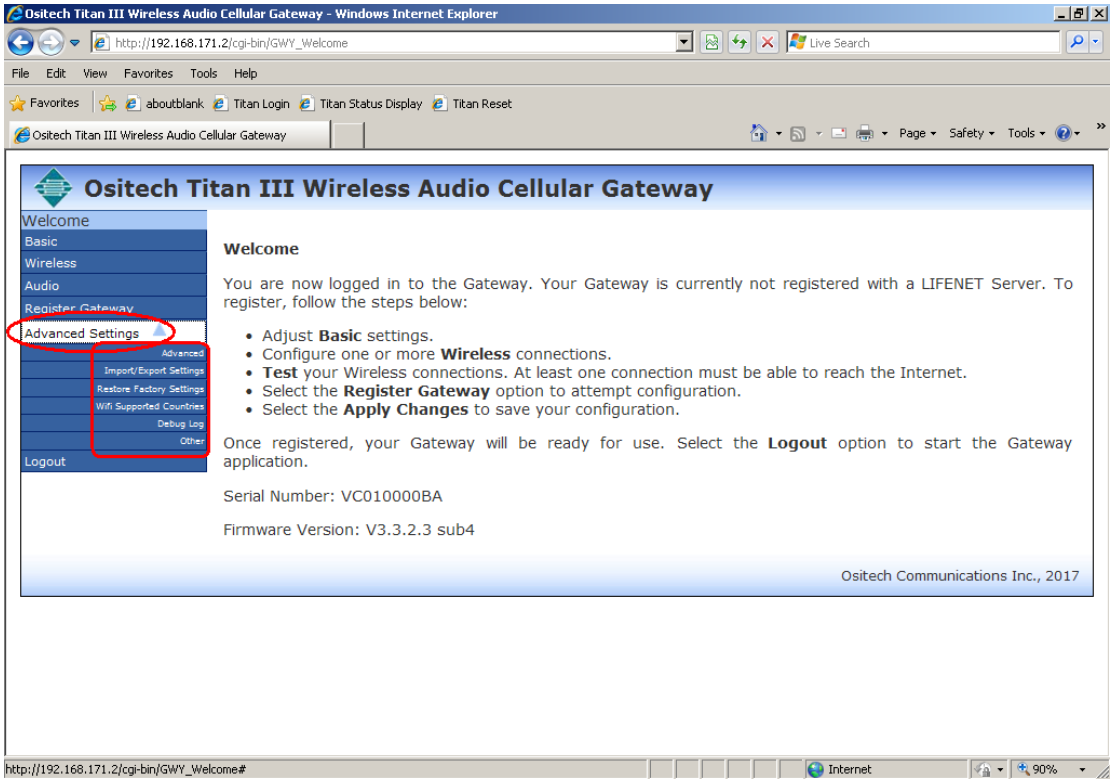
After Unregistration, any event logs that exist are uploaded to the LIFENET System if possible. If not they are deleted. Any audio files will also be deleted at this time.

5.5 AUDIO

From the left side of the configuration utility, click Audio. These features are available to optimize audio recordings. These settings will typically not change from the default setup. DO NOT ALTER any of these settings without the advice of your local LIFENET System team. This tab will ONLY be visible if you are using audio transmission capable hardware.

5.6 ADVANCED SETTINGS

To access the Advanced Settings options, on the left side of the configuration utility, click Advanced Settings. If your Gateway is the International version, you will now observe the six sub options that comprise the Advanced Settings: Advanced, Import/Export Settings, Restore Factory Settings, Wifi Supported Countries, Debug Log, and Other. Otherwise, if your Gateway is the USA/Canada version, the Wifi Supported Countries option will not be present.



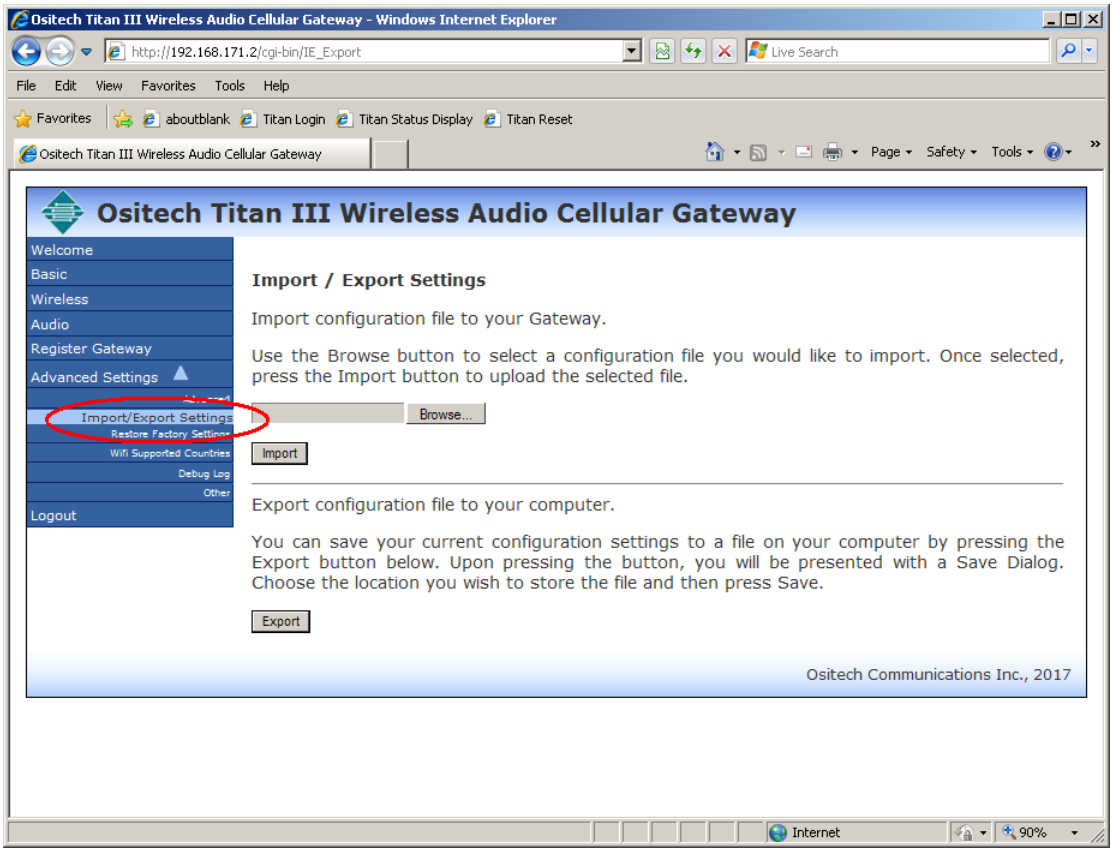
5.6.1 ADVANCED

To access Advanced, under Advanced Settings, select Advanced. DO NOT ALTER any of these settings without the advice of your local LIFENET System team.

5.6.2 IMPORT/EXPORT SETTINGS

To access the Import/Export Settings options, on the left side of the configuration utility, under the Advanced Settings, select Import/Export Settings.

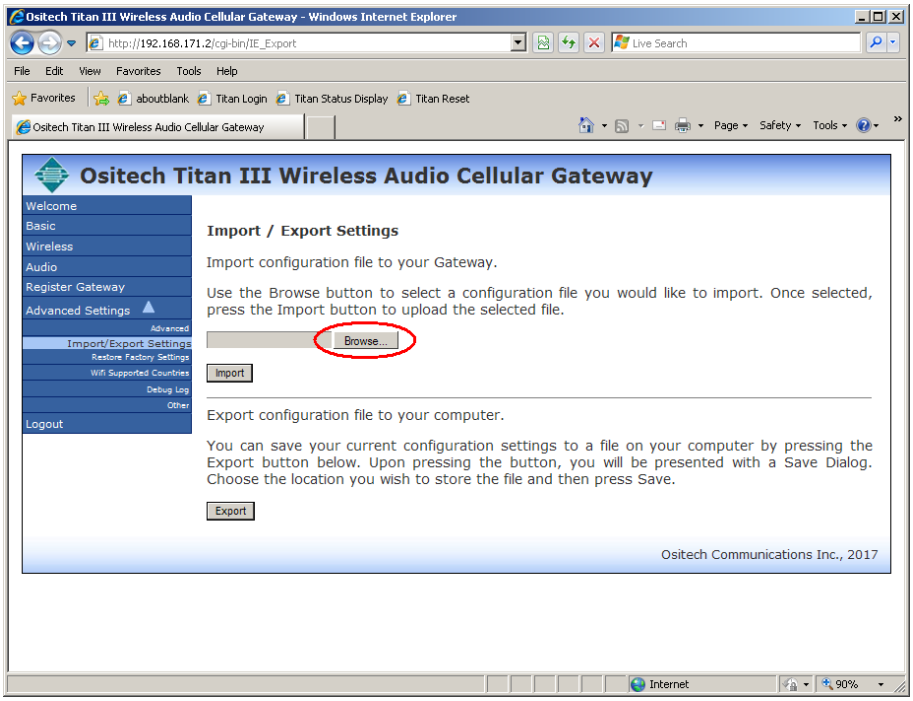
Please be advised, that only a configuration file from the same type of hardware is permitted. As an example, non-audio hardware can only import non-audio configuration files, and vice versa: only audio capable hardware can import audio capable configuration files, as configuration files are NOT interchangeable between different hardware variants.



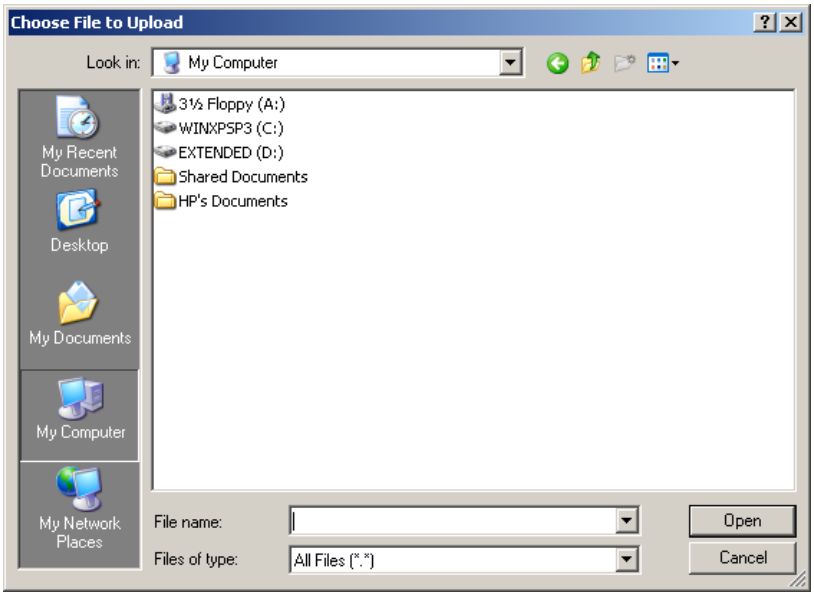
The Import/Export functionality will allow you to save Ositech Titan III Gateway configurations to your hard drive, allowing you to make it easier to configure a group of Ositech Titan III Gateways, and also to restore your saved configurations back to your Ositech Titan III Gateway. This is very important if performing a firmware update, as your existing configuration can be exported prior to the firmware upgrade, then imported back once the firmware upgrade has completed.

5.6.2.1 IMPORT CONFIGURATION

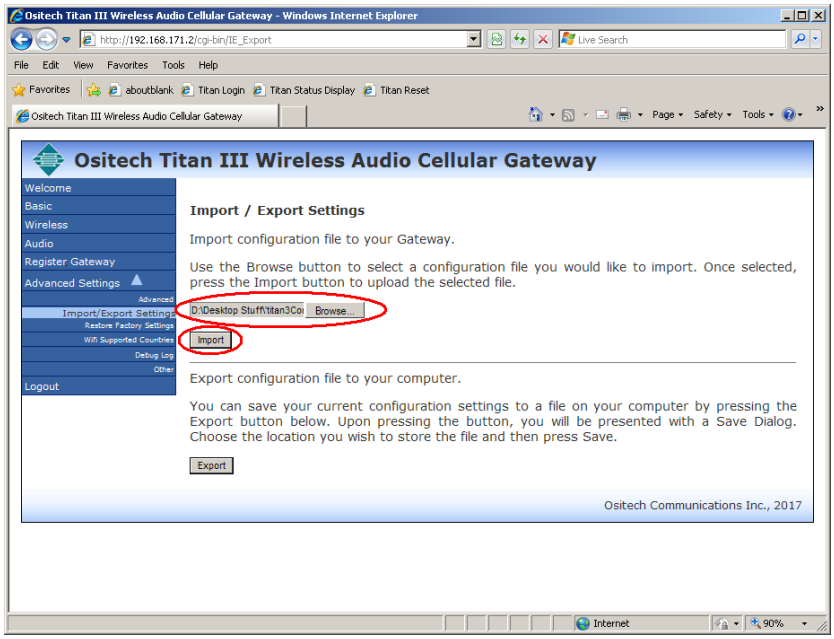
If you wish to import an external, previously saved, Ositech Titan III Gateway configuration file, click the Browse button to begin. Note, you cannot import a configuration, if the Gateway is currently registered.



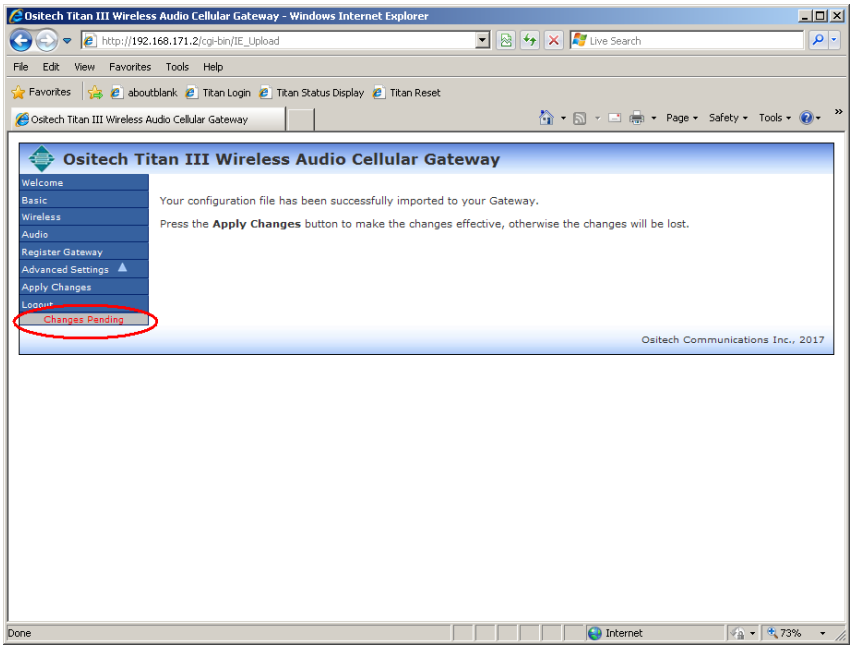
At this point, you must now select the external configuration file to import. Locate the external configuration file on your computer system, and then click the Open button.



You will now observe the configuration file that you have selected is ready to be imported. Click the Import button, and the configuration file you have selected will now be imported.

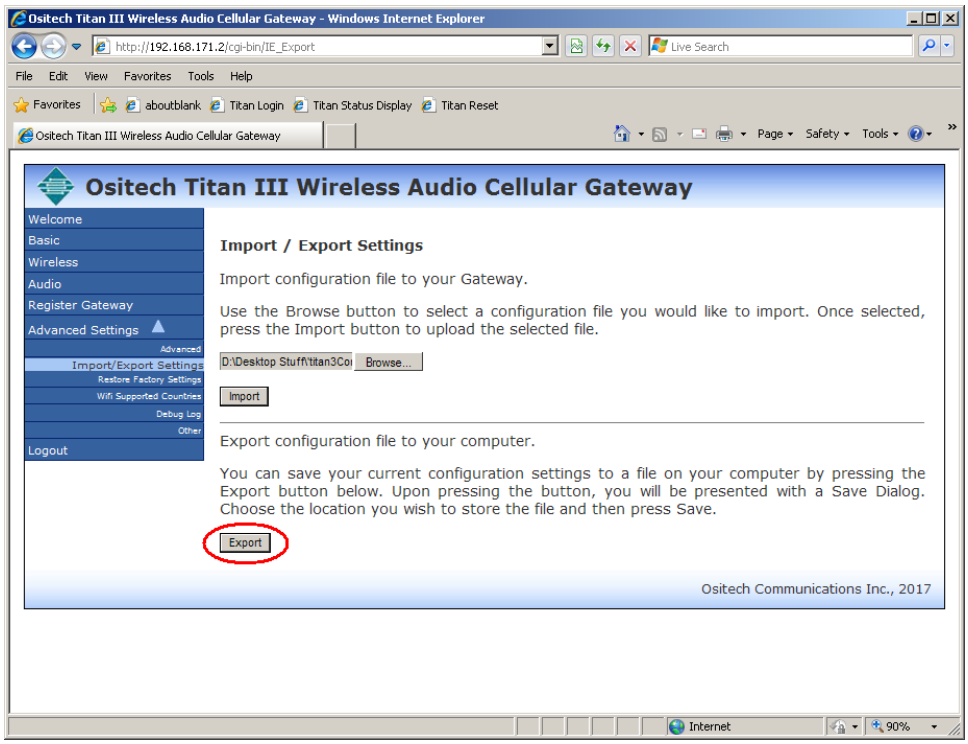


Your selected configuration has now been successfully imported. However, remember that these changes have not yet been applied, so ensure you click Apply Changes from the left side of the configuration utility.

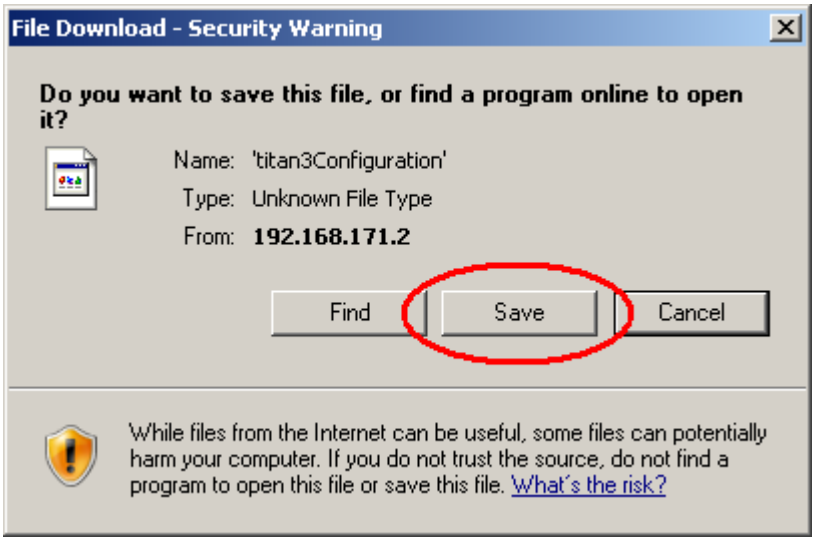


5.6.2.2 EXPORT CONFIGURATION

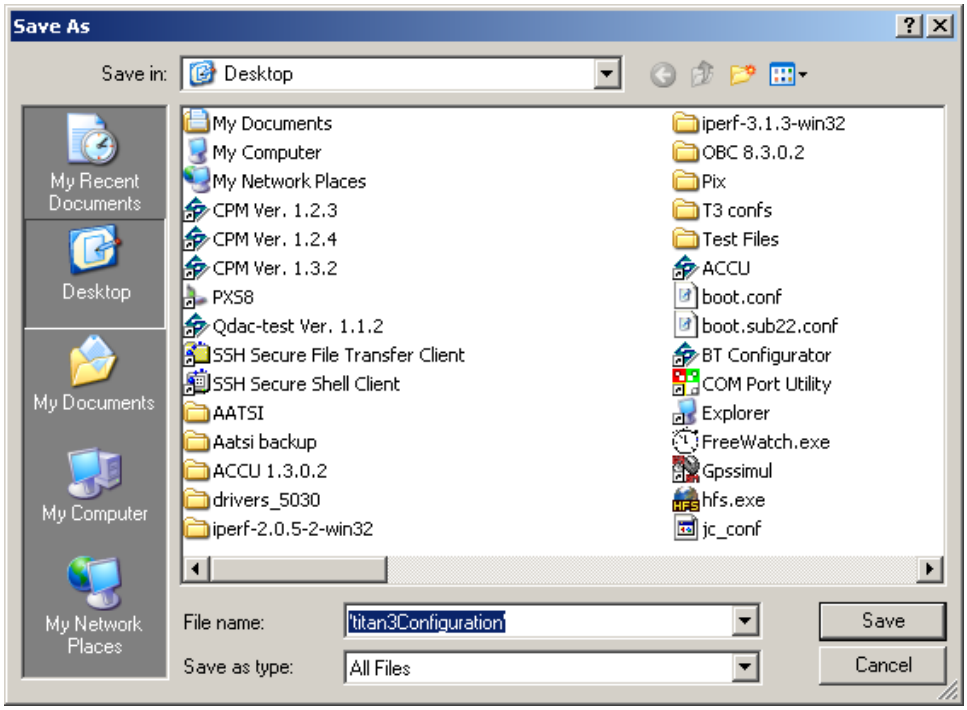
If you wish to export an Ositech Titan III Gateway configuration to an external file, click the Export button to begin.



Windows will now prompt you to save the configuration file. Click the Save button to continue.

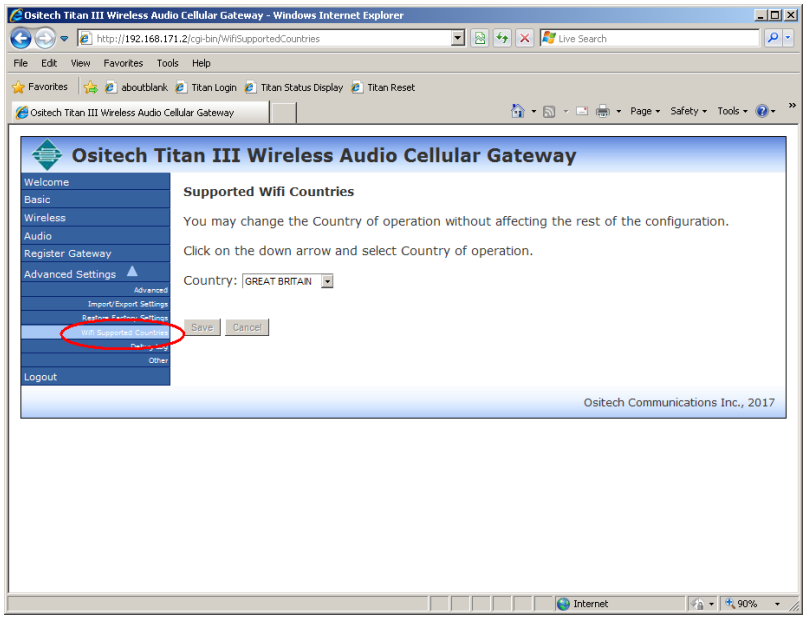


You will now be prompted to select the location where you wish to save the configuration file on your computer system. Select the location of your choice, and when ready, click the Save button to save the file. You can create a number of export files, each one being uniquely named to identify its contents.

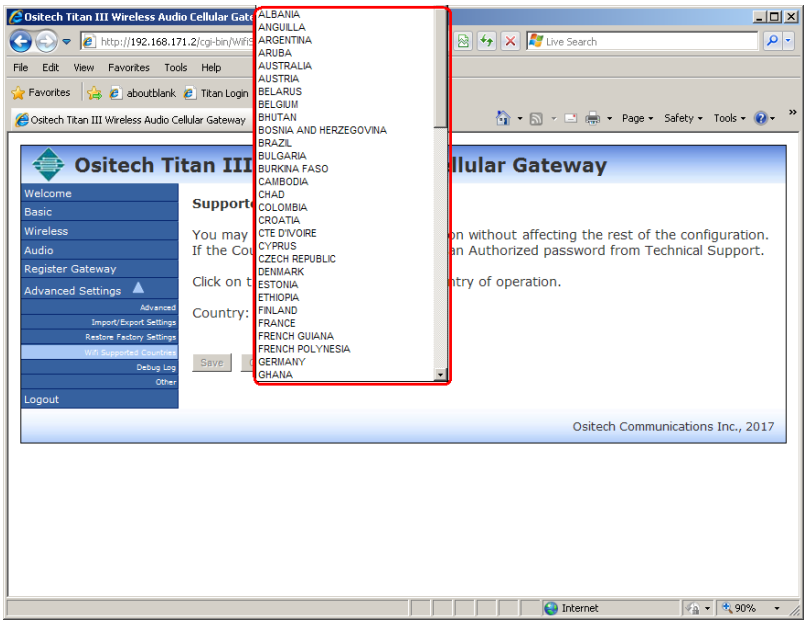


5.6.3 WIFI SUPPORTED COUNTRIES

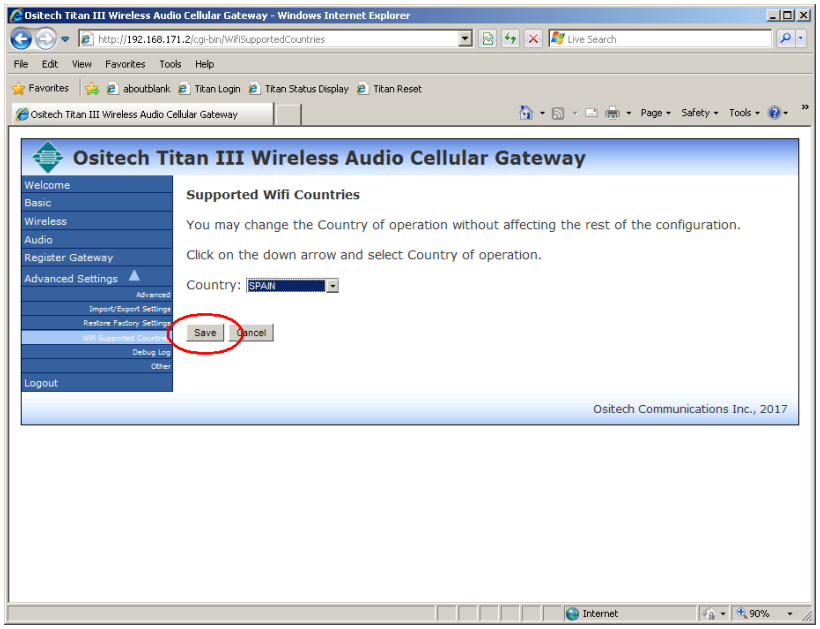
If your Gateway is the International version, you will observe the Wifi Supported Countries tab, from the left side of the configuration utility under the Advanced Settings. Here you may select any International country outside of the USA or Canada.



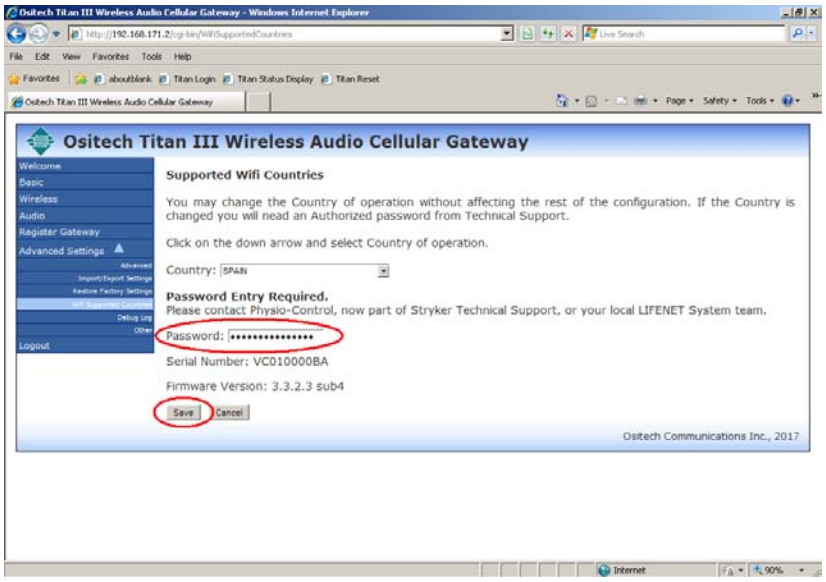
Pull down the Country selector, and choose the country from which the Gateway will operate.



Once you have selected the country of operation of your choice, click the Save button.

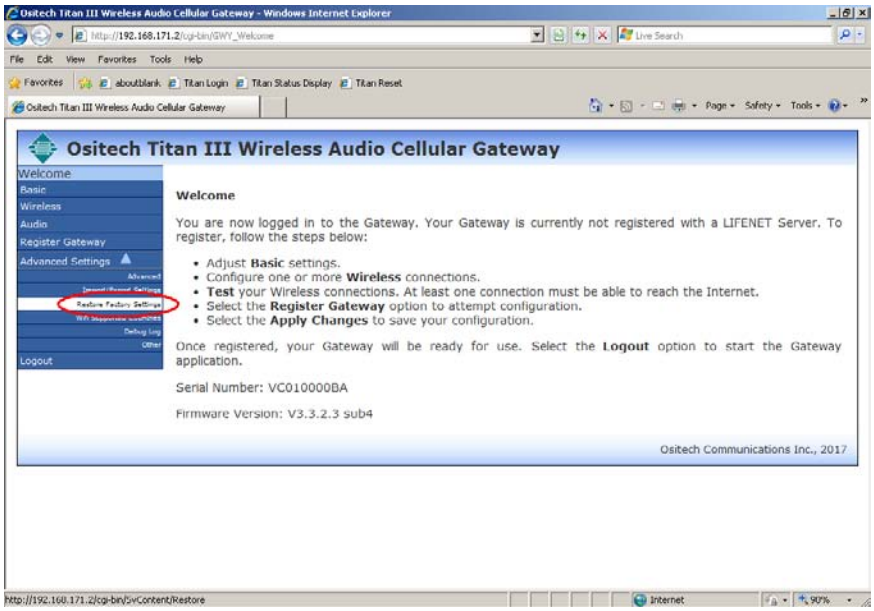


Due to regulatory domain compliance, at this time, a special password is required to finalize the country selection process. Please contact Physio-Control, now part of Stryker, Technical Support, or your local LIFENET team to proceed.



5.6.4 RESTORE FACTORY SETTINGS

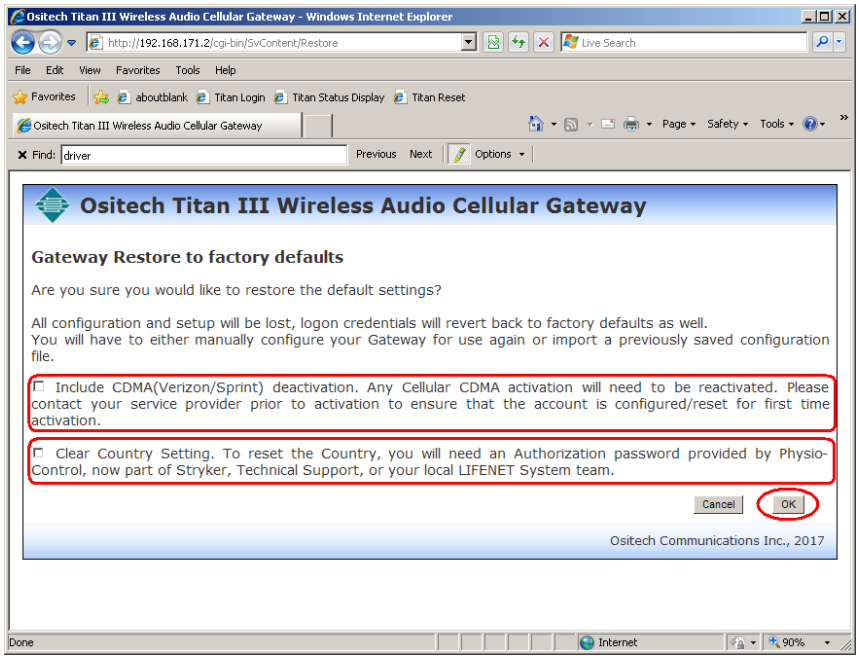
If you wish to restore the factory settings, from the left side of the configuration utility, under Advanced Settings, please click "Restore Factory Settings". This option is useful if you wish to load the factory default options and start your configuration fresh. Note, that any event logs and audio files will be deleted during a restore to factory settings.



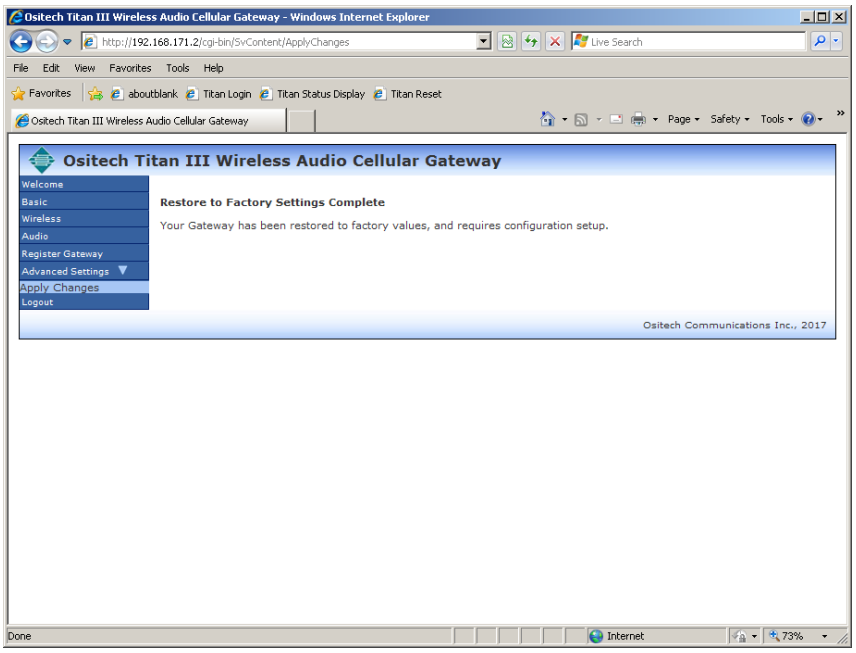
At this point, you will be prompted as to whether you wish to include CDMA deactivation as part of the restore to defaults function. If you wish to include CDMA deactivation as part of the restore to defaults process, check the appropriate box before clicking OK to continue. It is NOT recommended to include CDMA deactivation as part of the normal restore to factory defaults feature.

As well, if this Gateway was purchased for use outside of Canada/USA, you will be prompted as to whether you wish to include clearing the current Country Setting. If you wish to include clearing the current Country Setting as part of the restore to defaults process, check the appropriate box before clicking OK to continue. It is NOT recommended to include clearing the current Country Setting as part of the normal restore to factory defaults feature. Your current stored country selection will also be deleted and must be reselected and reauthorized.

This will also result in the gateway registration being reset locally; however the Gateway is not unregistered from the LIFENET System. Click OK to proceed.



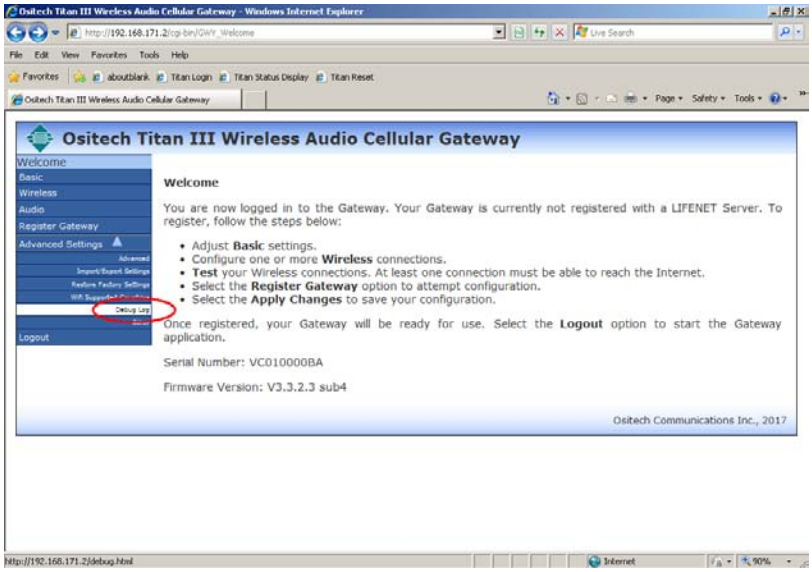
The default settings are now loaded and applied.



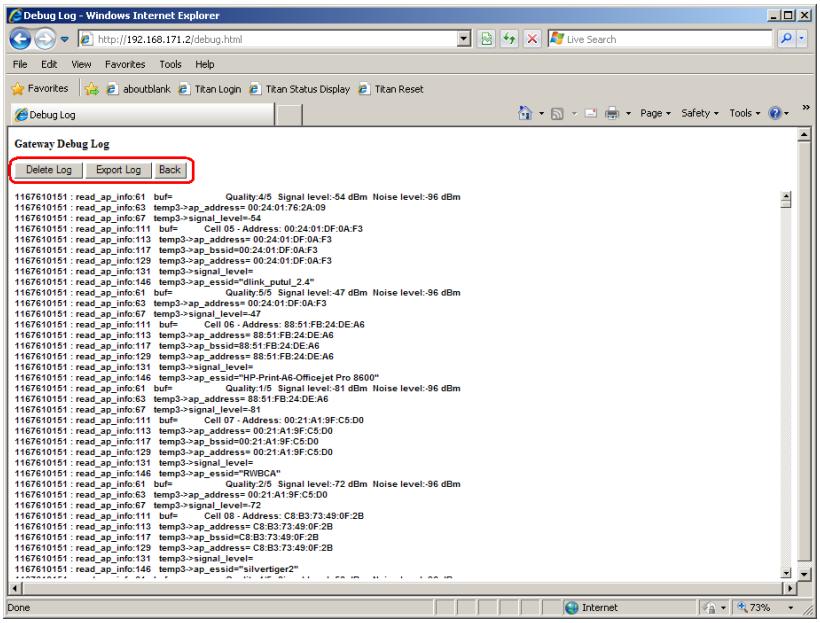
5.6.5 DEBUG LOG

To view the Debug Log options, please select Debug Log from the left side menu, under the Advanced Settings. The Debug Log is useful for general troubleshooting. Should you experience any operational difficulties, examining the Debug Log should assist with your diagnostic troubleshooting.

The Debug Log contains pertinent information that is relevant in technical support situations, should the need arise.

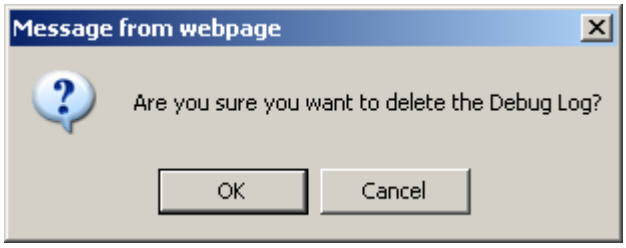


Once you click the Debug Log option, you will observe the current contents of your Debug Log. This area also allows you to select the Debug Log options including the ability to Delete Log, Export Log, and a convenient Back button to return to the previous menu.

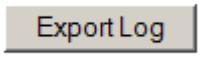


5.6.5.1 Delete Debug Log

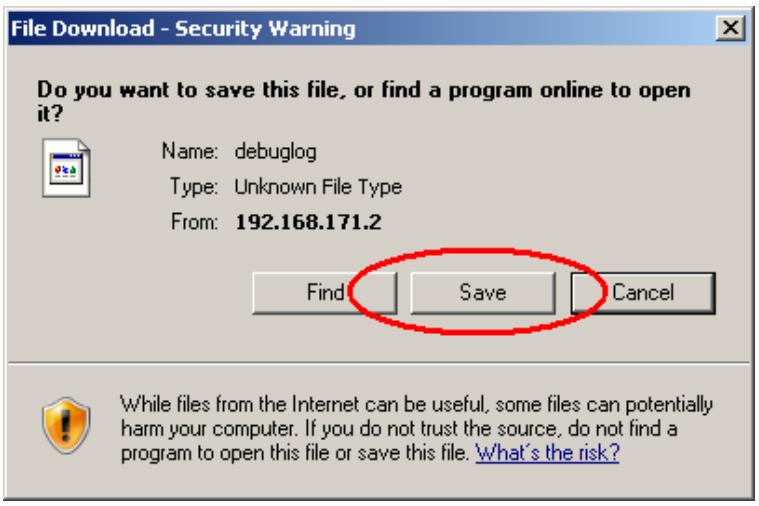
Click the Delete button to delete your existing Debug Log file. When you click Delete, you will then be prompted to confirm you wish to delete the Debug Log. Click OK to confirm, or click Cancel.



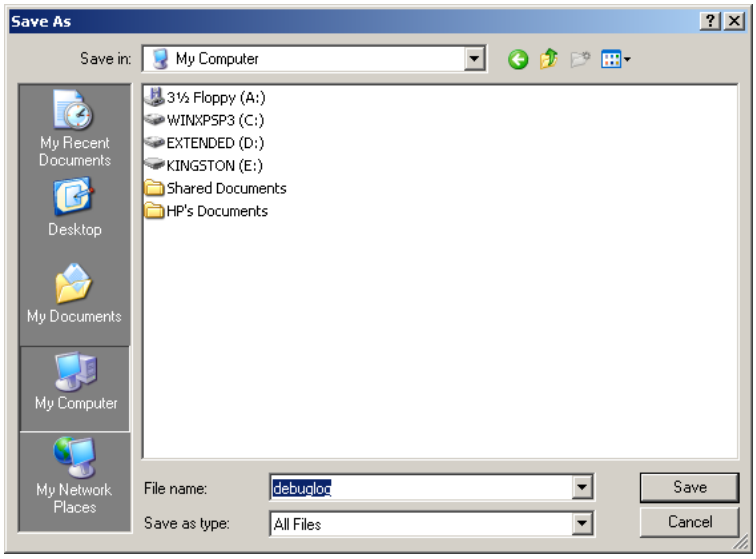
5.6.5.2 Export Debug Log



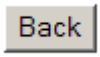
Click the Export Log button, if you wish to have an external copy of the Debug Log. Once you click the Export Log button, you will be prompted to Save the file. Click Save to proceed.



You will now be prompted to actually save the file. Should you wish to alter the file name and/or path, please do so now, then click Save to store the file accordingly.



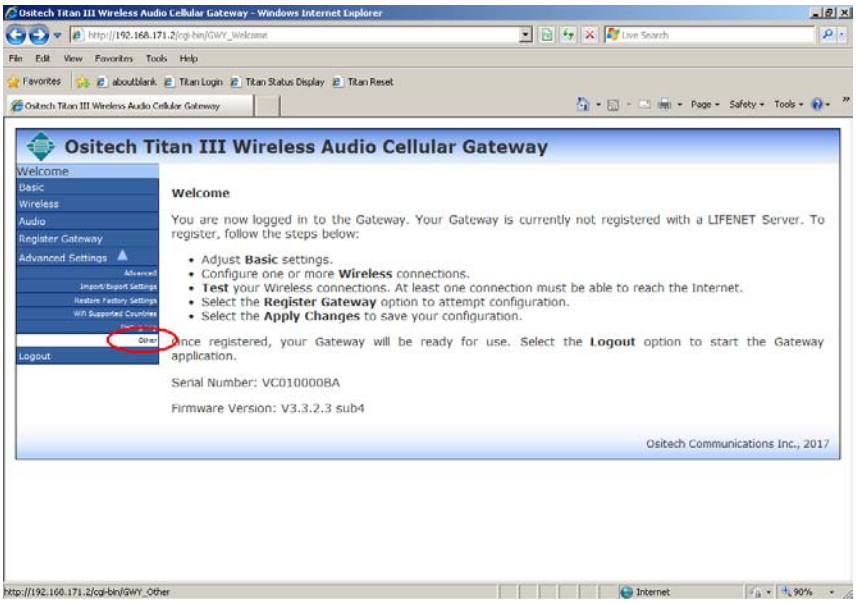
5.6.5.3 Back



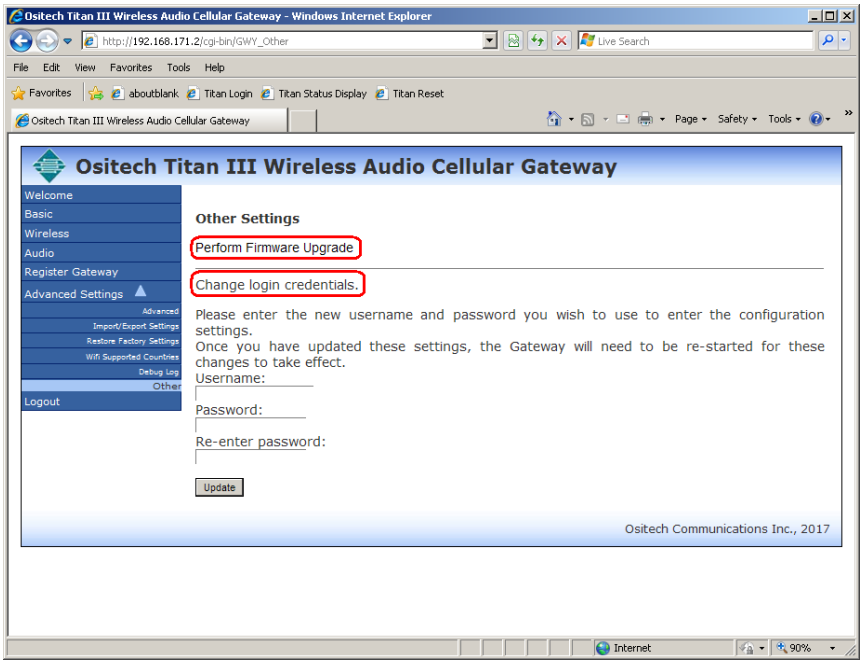
Click the Back button to return to the previous menu.

5.6.6 OTHER

To access the Other functions, from the left side of the configuration utility, under the Advanced Settings, click Other.

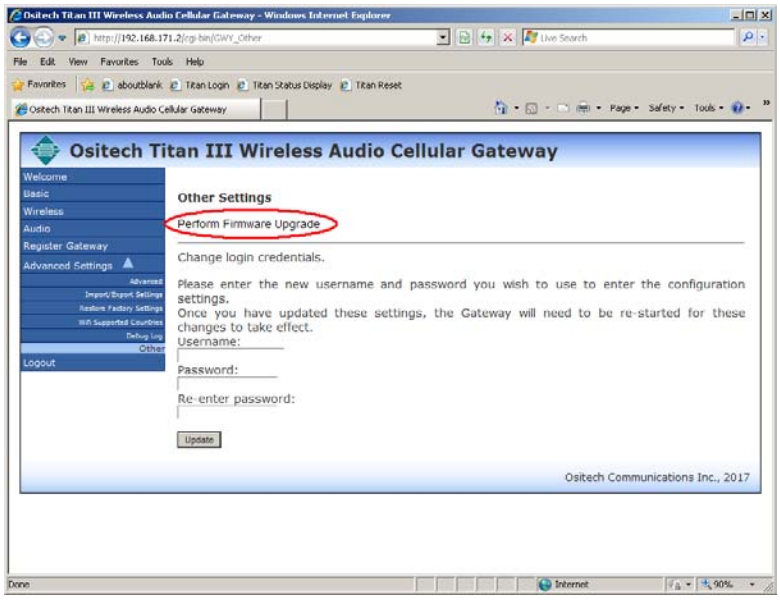


The Other functions available include the options to perform a firmware upgrade on the Ositech Titan III Gateway, and the ability to change your login credentials.

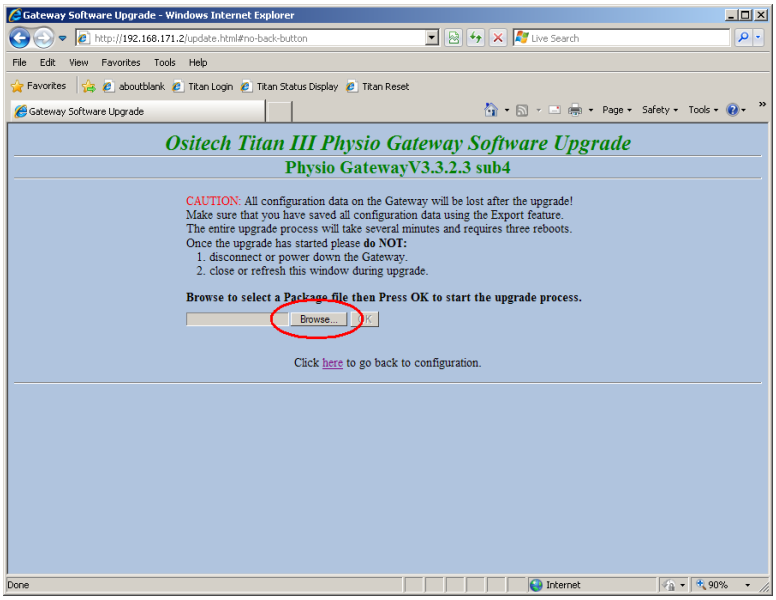


5.6.6.1 Perform Firmware Upgrade

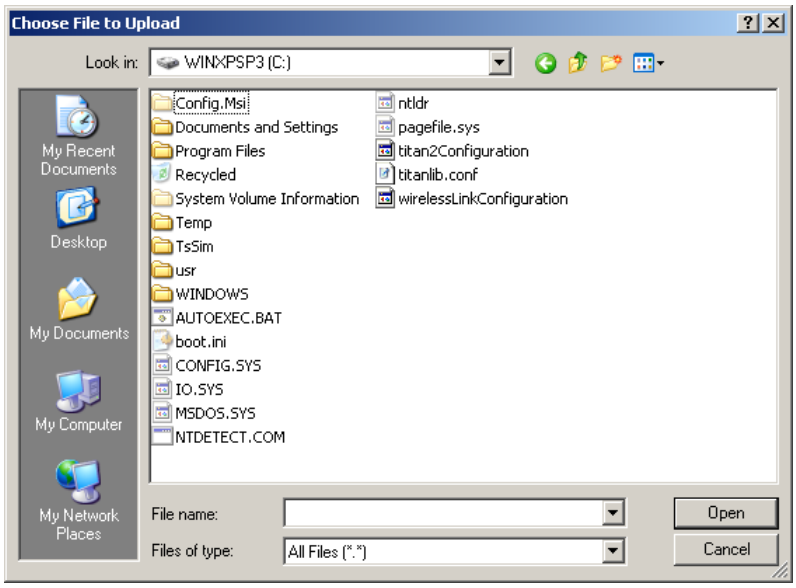
Should you be advised that a firmware upgrade is available, you will be able to upgrade your Ositech Titan III Gateway without returning your unit. To perform a firmware upgrade, under the Other options, click the Perform Firmware Upgrade option to begin. Note, you are strongly advised to export your current configuration and registration information prior to commencing the firmware upgrade process.



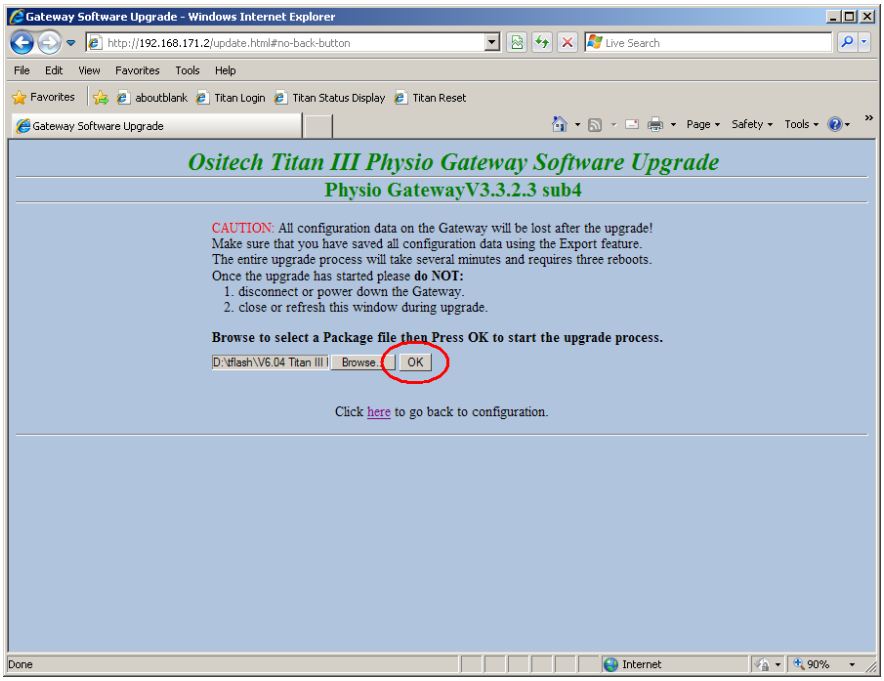
Once you have clicked to perform a firmware upgrade, the configuration utility will launch the Titan III Software Update feature. To begin the software update process, click the Browse button to continue.



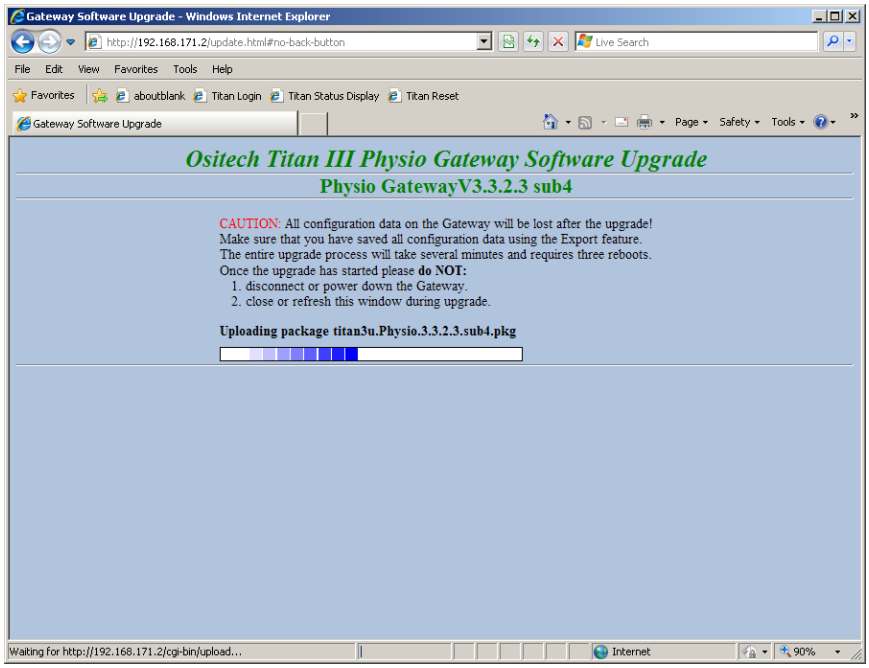
A new dialog window will now appear. At this point, locate and select your firmware upgrade file. Once you have selected the firmware upgrade file, click the Open button to proceed.



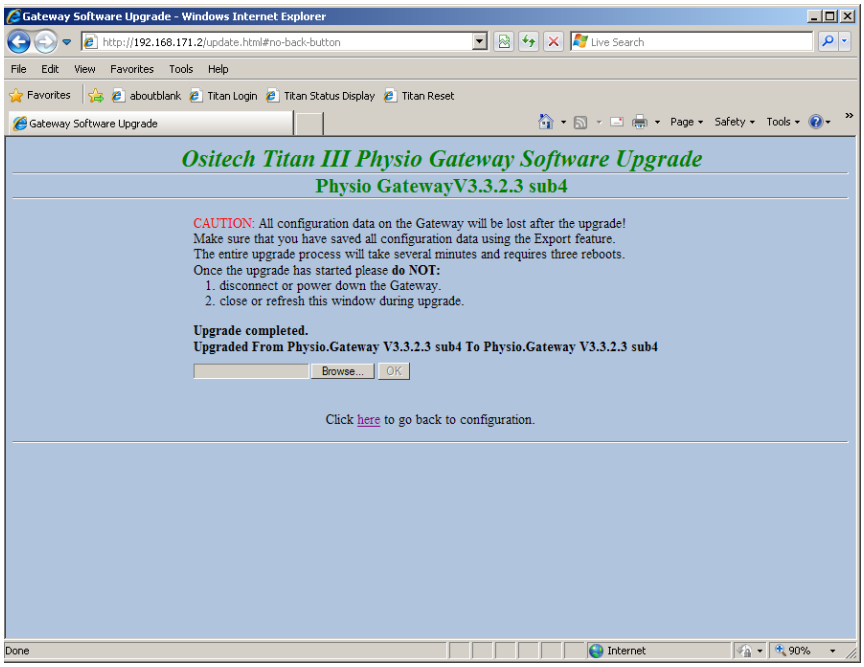
While the update is in progress, you will observe its progress, and then when the software has been uploaded to the Ositech Titan III Gateway, click the OK button to continue.



Once you click OK, the Titan III Software Update page will display its status. Please be patient during this time, as this process can take approximately 2.5 minutes to complete.

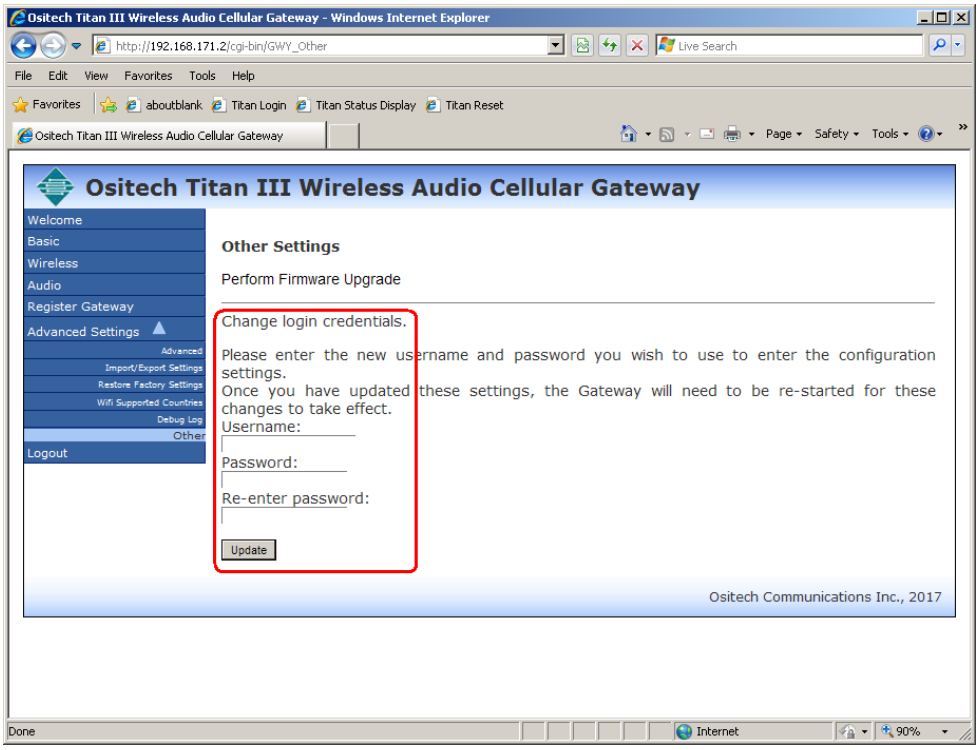


Once the update has completed, you will then be advised of the current software version that you have just upgraded to. At this point, you need to reconfigure your Ositech Titan III Gateway for further use, as all previous stored information was erased during the update process. After a firmware upgrade has been performed, it is recommended to exit Internet Explorer and then relaunch the browser and to access the configuration utility.

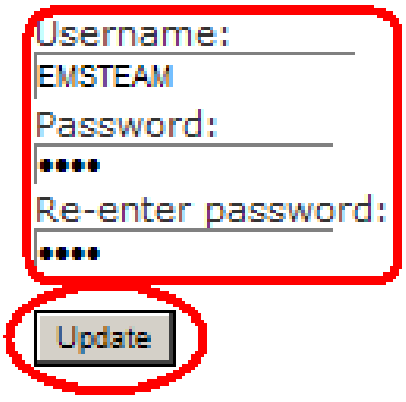


5.6.6.2 Change Login Credentials

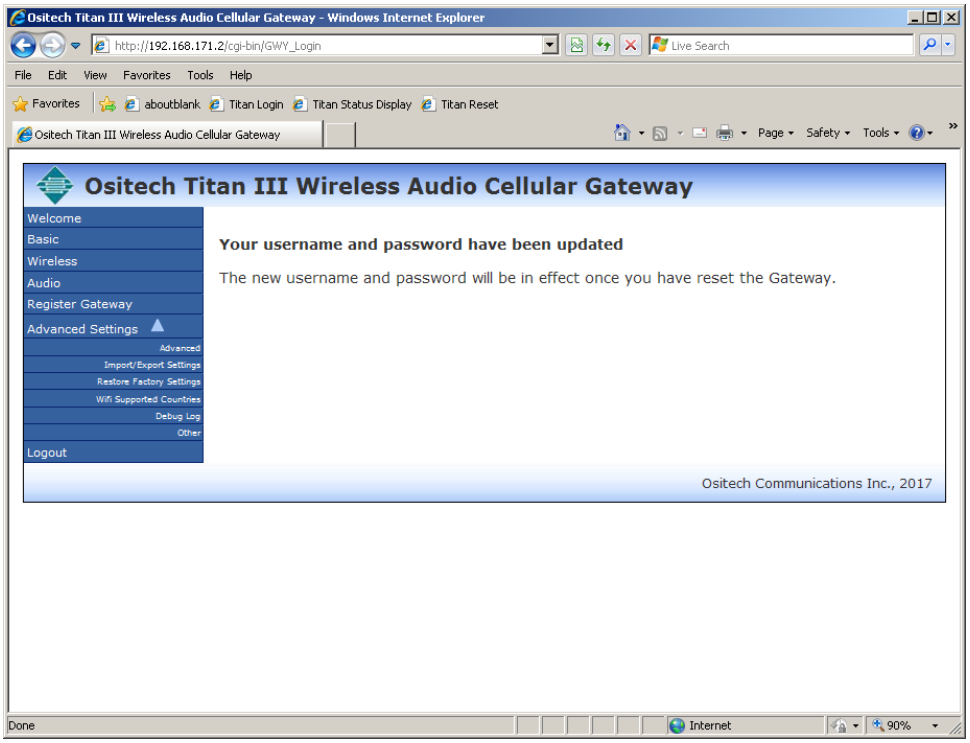
If you prefer, you may change your login credentials to something more unique from the factory defaults. If you do decide to make these changes, please make note of your new login credentials, as you will require these for any future login attempts.



Please enter the new Username and Password of your choice. Finally, Re-enter your password as a security check. Then, click Update to apply your new Username and Password.



You will now be advised that your username and password have been updated, and will take effect the next time Ositech Titan III Gateway is restarted. Please disconnect power from the Ositech Titan III Gateway, and then reapply power. The next time you login to the Ositech Titan III Gateway, you will now use your newly assigned username and password.



6 TECHNICAL SUPPORT

Should you require any technical assistance with your Ositech Titan III Gateway, or if you have any questions or concerns, contact Physio-Control, now part of Stryker, Technical Support.

The hours for live technical support are from 6am to 4pm Pacific Time, Monday through Friday. The number for Physio-Control, now part of Stryker, Technical Support in the USA is 1-800-732-3081.

Alternatively, if you would prefer to send an email to Physio-Control, now part of Stryker, Technical Support, the email address is smartdesk@stryker.com.

NOTE: For users outside of North America, please contact your local LIFENET System team.

Manufactured by:
Ositech Communications, Inc.
430 Laird Road, Units 5-7
Guelph, Ontario
N1G 3X7

APPENDIX A: CELLULAR PRE-AUTHORIZATION

CDMA (Verizon):

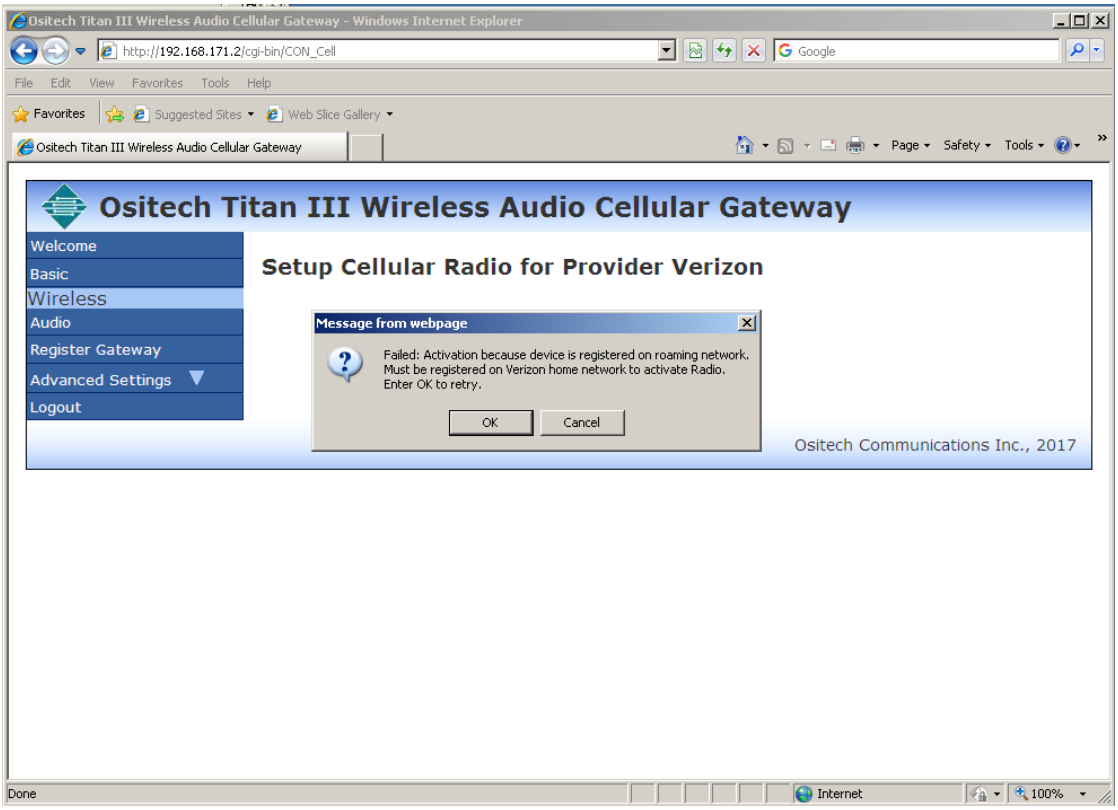
CDMA (Verizon) 3G cellular operations do not require a SIM card. However, the cellular radio itself must be pre-authorized for service prior to attempting local activation.

In order to pre-authorize your cellular radio with your CDMA (Verizon) service provider, you need to retrieve the MEID of the cellular radio. This is located on the white sticker which is attached to the Ositech Titan III Gateway itself.

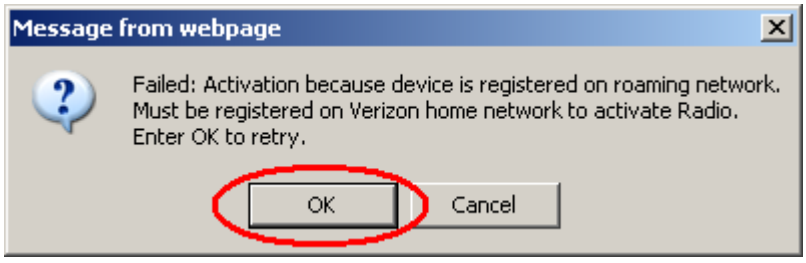
Once you have retrieved the MEID of the cellular radio, you may now contact your CDMA provider and pre-authorize your cellular radio for use. Once you have pre-authorized the cellular radio, you may now activate it for use, using the Configuration utility.

APPENDIX B: VERIZON (CDMA) ACTIVATION / REACTIVATION

If you have selected to create a new Cellular connection to the Verizon network, and you have received the indication that the CDMA Device is not activated, this may be due to a variety of reasons. Please ensure that you are physically located on the home Verizon network, as you cannot activate the cellular radio with Verizon if you are roaming. In addition, please ensure that your signal strength is sufficient. You may need to relocate yourself for improved signal quality.

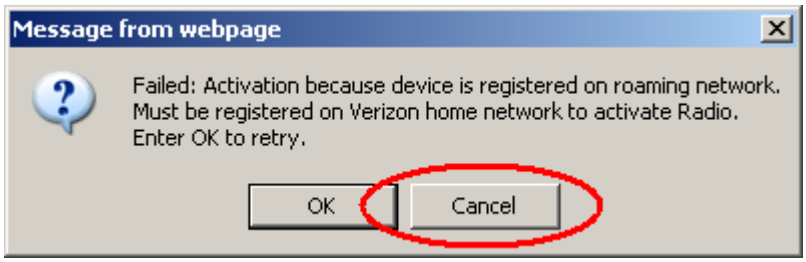


You may retry the activation process once again, if you are certain that you are on the home Verizon network, not in a roaming area, and that you have sufficient cellular signal. Please click the OK button to retry once again.



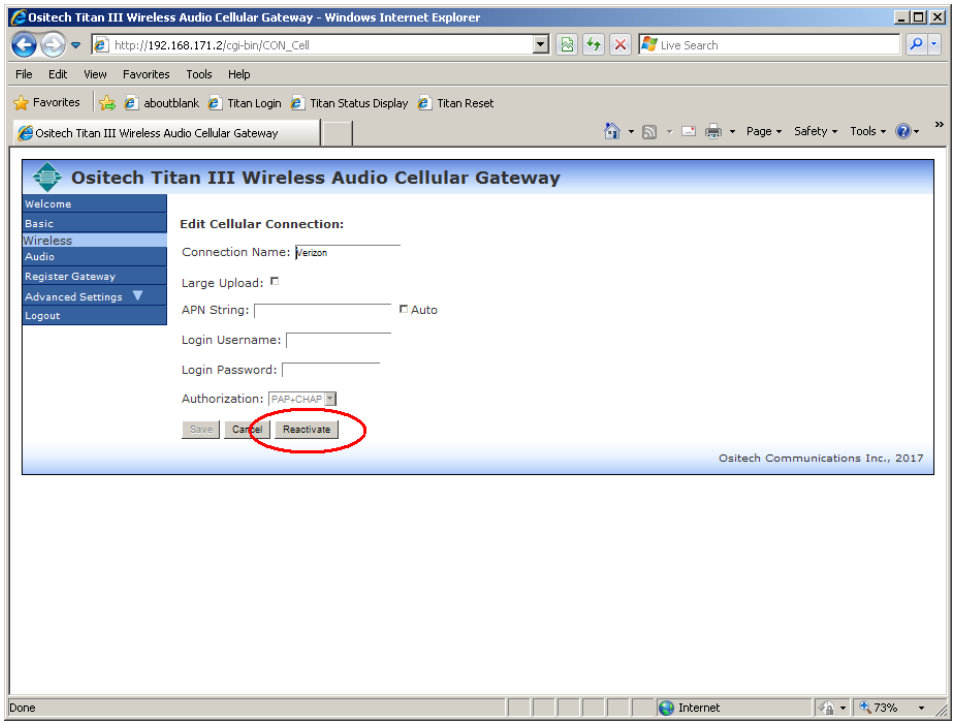
If the activation process is successful, you will be returned to the Wireless Settings page without further notice regarding activation. Please remember to Apply Changes when complete.

If, alternatively, the activation process has failed once again, you will receive another onscreen dialog. Should this be the case, click the Cancel button, and then contact Technical Support for more assistance with the pre-registration of your cellular account.

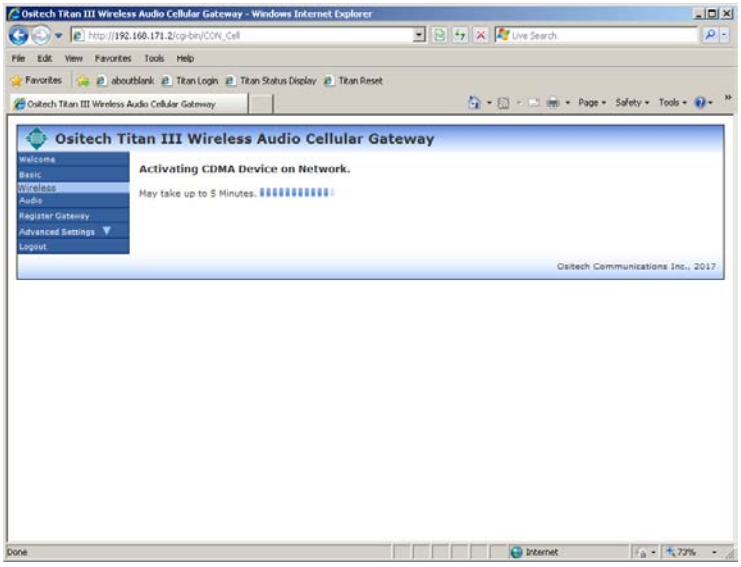


Should the situation arise where you have discontinued service with Verizon, after having activated the cellular radio for use, you may need to Reactivate the cellular radio. This condition can only occur if you have left the Verizon cellular connection intact on the Gateway, and service has been discontinued with Verizon.

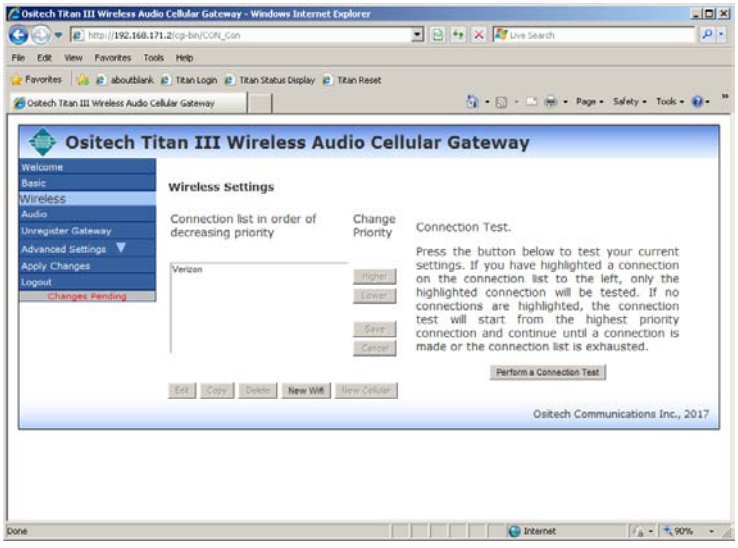
To Reactivate your cellular radio with Verizon in this condition, on the left side of the Configurator, click the Wireless button. On the Wireless Settings page, proceed to create your Verizon cellular connection as normal, if one does not already exist. Once you have successfully created the Verizon cellular connection, click the Edit button on the cellular connection, and you will observe there is a Reactivate button present at this time. Click the Reactivate button to proceed, however ensure you are situated on the local Verizon network, and that you have sufficient signal strength.



At this point, the cellular radio will attempt to reactivate its service with Verizon. Please be patient during this time, as it may take up to 5 minutes for this process to complete.



If the reactivation process was successful, you will be returned to the Wireless Settings page. Remember to click to Save.



In the event that the reactivation process has failed, you will be advised once again of this situation. Ensure you are situated on the home Verizon network, as you cannot reactivate while roaming, and also, ensure you have sufficient signal strength and are located in unobstructed environment.

At this time, please contact Technical Support for further instructions, with regards to your failed reactivation.

APPENDIX C: SIM CARD REMOVAL / INSERTION

If your Ositech Titan III Gateway has support for Cellular operations, you may have the need to either insert or remove an existing SIM Card. This section will illustrate the removal and/or insertion of a SIM Card into your Cellular capable Gateway. Please be aware, removal and/or insertion of a SIM Card requires the Gateway protective clam shell to be opened to access the SIM Card slot, and then closed afterwards before use.

1. Power off the LIFEPAK device.

2. Disconnect the connector cable from the Gateway to the LIFEPAK device.

3. Remove the Gateway from the side pouch of the LIFEPAK device.

4. Have on hand the recommended required tools. A set of tweezers and a small flat head screwdriver will be required.

5. Orient the clam shell case such that the bottoms of the rivets are facing upwards to facilitate removal.

6. Using the small flat head screwdriver, press the center pin of the expanded rivet downwards, such that it unlocks the rivet. Repeat this process for all four rivets.

7. Once all four rivets have been unlocked, invert the clam shell case such that the rivets may be grasped for removal using the tweezers.

8. Using the tweezers, remove all four rivets by simply pulling them up. Keep the rivets handy for reuse later to close the clam shell case when done.

9. Now that all four rivets have been removed, grasp the clam shell case, and invert the case. The bottom case of the clam shell will now be facing up.

10. Using one hand, gently separate the clam shell by lifting the bottom side of the clam shell upwards.

11. You should now observe the internal components of the Gateway.

12. This step can be omitted, if your Ositech Titan III Gateway does not have the Audio feature. Observe the aluminum foil tape. Gently lift the aluminum foil tape to expose the microphone cord below. After you have lifted the aluminum foil tape, unplug the microphone cord from the microphone jack.

13. Once you have disconnected the microphone cable if present, raise the Gateway to expose the front face plate. You will observe the rubber SIM Card slot cover. Remove the SIM Card slot cover, and set aside for reuse.

14. Prepare for SIM Card removal or insertion. To remove an existing SIM Card, simply press the inserted SIM Card until such time you feel the click which unseats the SIM Card. Grasp the SIM Card and remove it straight out. Alternatively, to insert a SIM Card, ensure you have the SIM Card oriented properly. The gold contacts should face upwards, and the notch forward. See illustration below.

15. Insert the SIM Card at this point, press and feel for it to click and lock in place. A properly inserted SIM Card will be flush with the face plate and will not stick out.

16. Replace the SIM Card slot cover accordingly.

17. Reconnect the microphone cord into the microphone jack. (For Gateways with Audio feature only)

18. At this point, using the existing aluminum foil tape, secure the microphone cord assembly. See illustration below. (For Gateways with Audio feature only)

19. Next, ensure all cables, connectors and antennae are fully seated and secured to the Gateway. Once you have verified all cabling, etc, you will need to route the Hypertronic cable properly. See illustration below.

20. Prepare to close the clam shell case.

21. Close the clam shell case. Ensure the Hypertronic cable exiting the Gateway is not being pinched at this time.

22. Invert the Gateway, so that the rivets can be reinserted into the clam shell case. Insert all four rivets, and make sure you push them fully into the clam shell case. You may use the tweezers to insert the rivets, and then use the flat head screwdriver to ensure they are fully seated and locked into place. The rivets will automatically lock into place, once they have been fully inserted and seated.

23. Grasp the Gateway, and examine the plexiglass window. Ensure the SIM Card slot cover is in place, and that the clam shell case is locked and secure.

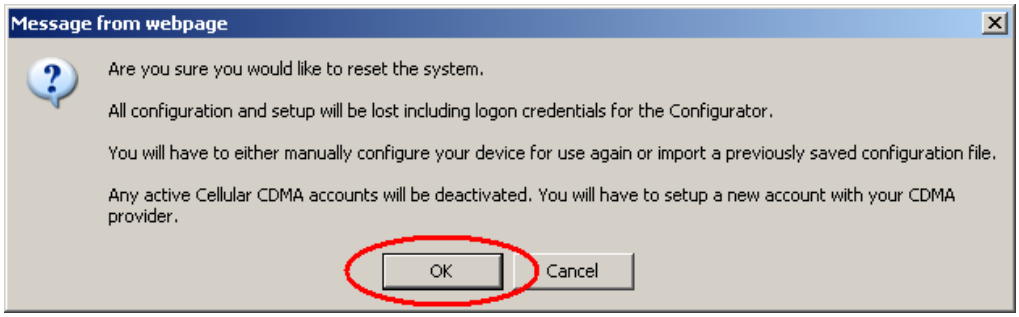
24. At this point, you will need to configure your Gateway for cellular operations. Refer to Section 5 regarding configuration. Once you have configured your Gateway, you may then refer to the Gateway Placement Guide, and replace the Gateway in the side pouch of your LIFEPAK device.

APPENDIX D: HOW TO RESET USERNAME AND PASSWORD

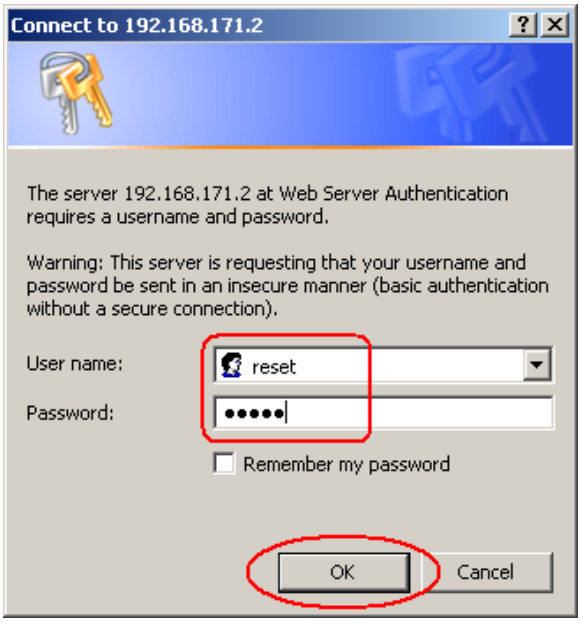
If you forget your Username and/or Password, you can restore the default Username and Password. However, resetting your Username and Password to their default values, will also result in the restoration of the factory defaults of the Ositech Titan III Gateway. Note that all event logs, audio files, and your registration will also be deleted during this process.

If you wish to reset the Username and Password back to their default values, launch Internet Explorer. When you have opened Internet Explorer, please open the following URL:
http://192.168.171.2/reset

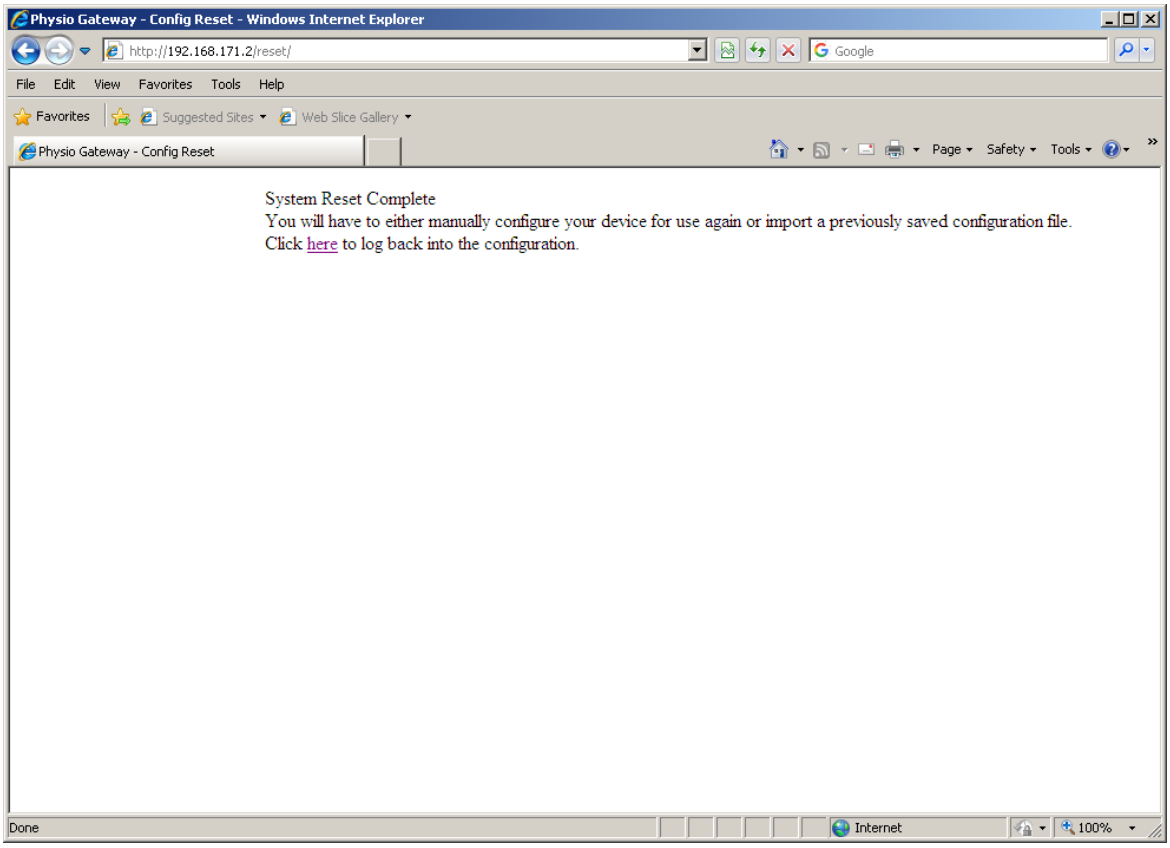
Once the URL is opened, you will observe a dialog box asking if you are sure you want to reset the system. If you wish to proceed, click OK.



At this point, you must login to the Ositech Titan III Gateway; however, since you have requested to reset the username and password, you need to enter "reset" as both the username and password in order to continue with the reset process. Once you entered "reset" for both username and password, click the OK button.



Once you have logged in using the reset credentials, the Gateway will then perform the reset. At this point, you will need to re-configure your Ositech Titan III Gateway for further use. It is advisable that you import your previously saved configuration, for more ease of use. After a reset, the default username reverts back to "admin", and the password also reverts back to "admin" (without the quotation marks).

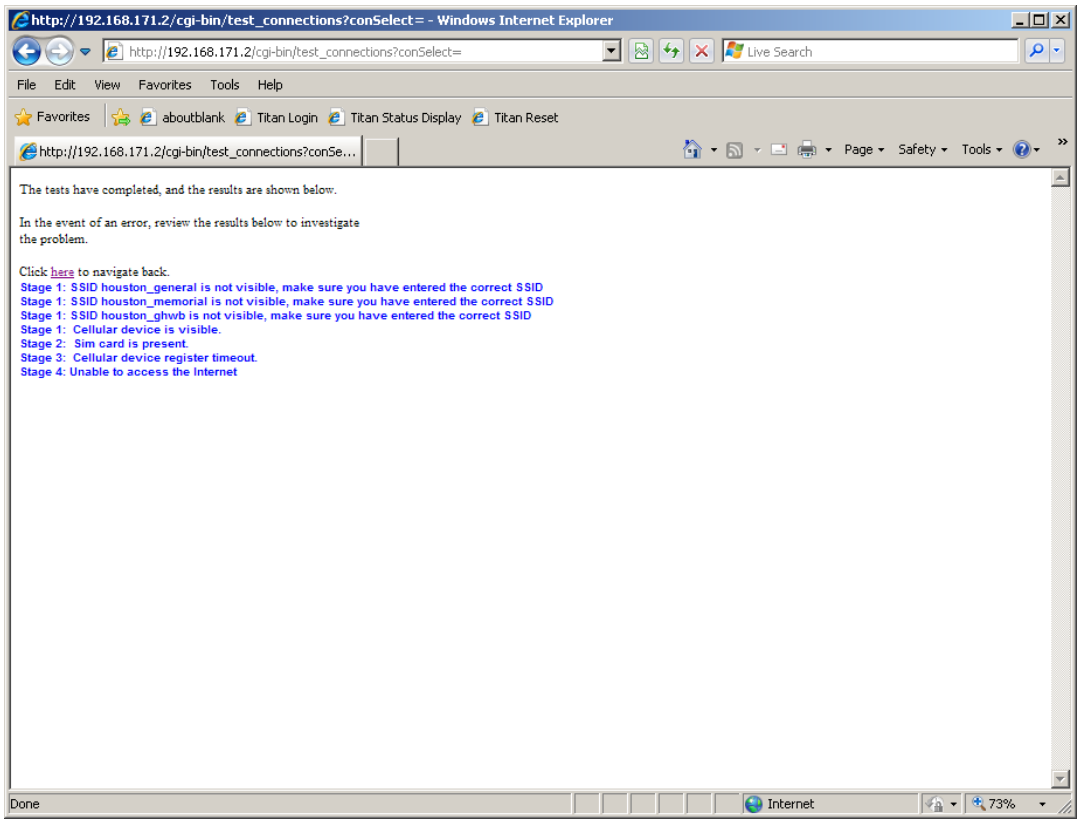


APPENDIX E: TROUBLESHOOTING FAILED CONNECTIONS

This area will help you to diagnose your failed connection tests. Please refer to your failed test to determine which stage of the test needs to be diagnosed further.

Once the connection test has completed running, the results are displayed as shown below. Your results will not be identical, as this is dependent on your configuration and the test environment. You will note that the stages may repeat themselves; this is an indication that more than one connection has been defined. The connection test duplicates how the Ositech Titan III Gateway will attempt to make a connection to the Internet. It will start with the highest priority connection and work its way down to the lowest priority connection, unless a specific connection has been selected for individual testing. If a connection attempt fails, the connection test will start anew with the next connection in the priority list. This will continue until a connect attempt reaches Stage 4, the Internet, or all of the defined connections are exhausted. By reviewing the connection test results you will be able to determine what has caused a specific connect attempt to fail before moving on to the next connection.

Sample Connection Test Results with Multiple Connections, including Cellular:



Always make sure that you review the results carefully and that the results reflect your current test environment. If you know that SSID's are currently not in range, the test results should indicate this.

Wifi Failed Connections:

Stage 1. This stage of testing involves the wireless access point, and verifies that it is visible. If your SSID is not visible, this test will be skipped.

If you encounter a failure at this stage, verify that the SSID name you entered is indeed correct.

Stage 2. This stage tests the range of your wireless access point, based on preset threshold settings.

If you encounter an error from this stage, the Gateway is not within acceptable range of the wireless access point. Try moving your physical location closer to the wireless access point in question.

Stage 3. This stage of testing will verify that you can successfully connect to your selected wireless access point.

If you encounter an error at this stage, possible causes include the authentication type and/or the key if required. Verify your authentication type is correct, and then re-enter your key if required.

Stage 4. This stage of testing verifies that you can successfully access the Internet through your wireless access point.

A failure at this stage indicates the Ositech Titan III Gateway is able to connect to your wireless Access Point; however it cannot access the Internet. Possible causes include the settings of your wireless Access Point itself, the backhaul connection to the Access Point (i.e. the WAN cable is disconnected), and/or the WEP key.

Cellular Failed Connections:

Stage 1. This stage of testing involves the cellular radio, and verifies that it is active.

If you encounter a failure at this stage, you need to verify the Gateway is externally powered while connected to USB.

Stage 2. This stage of testing involves the cellular radio SIM Card, and verifies it is inserted properly into the SIM Card slot.

If you encounter an error at this stage, ensure your sim is fully and properly inserted into the sim card slot.

Stage 3. This stage of testing will verify the cellular radio can register on your cellular provider's network.

If you encounter an error at this stage, the possible areas to examine include your current location (signal strength), antenna obstructions, or your data account with the cellular provider. Ensure the SIM Card was inserted BEFORE powering on your gateway.

Stage 4. This stage of testing verifies that you can successfully access the Internet through your cellular provider.

If you encounter an error at this stage, possible causes include the APN (Access Point Name) string, and username and password credentials if required for your specific cellular provider.

<u> CISCO WLC Access Points- Operations With CCX Enabled **</u>**

If you are attempting to connect to a CISCO WLC Access Point(s), with the CCX (Cisco Compatible Extensions) options enabled, this may cause unreliable operations with Titan III Wireless Gateways.

Should the CCX option be enabled, the Titan III Wireless Gateways may fail authentication with the CISCO Access Point(s).

In order to alleviate this condition, it is recommended to disable this feature on the CISCO WLC Access Point(s). This should restore reliable operations with the Titan III Wireless Gateway. Please see your I.T. department for further details.

APPENDIX F: COMMUNICATION REQUIREMENTS FOR AUDIO OPERATION

Due to the large amount of audio data (can be as large as 59-Mbytes) that can possibly be uploaded from the Ositech Titan III Wireless Fast Audio (Cellular) Gateway; consideration must be given to the communication connection being used. Three important factors need to be identified.

- **Is the communication connection suitable for this large amount of audio data? Suitability in this case refers to reliability of the connection to the internet and possibly cost implications. The communication connection may be suitable for ECG data but not audio data.**

- **Does the communication connection provide enough bandwidth to allow the audio data to be uploaded within the default 15 minute maximum time limit imposed by the LIFENET System? The maximum time limit can be extended, however this requires the user to contact their LIFENET System support for this request.**

- **Both Wifi and Cell connections can possibly support audio transmissions.**

To help with the first factor above the Ositech Titan III Wireless Fast Audio Gateway provides a programmable option to determine which communication connections should be used for audio uploads. Those that do not allow audio uploads can be used for ECG uploads only, those that allow audio uploads can be used for both ECG and audio uploads (see Wireless Settings section for more details).

The following requirements must also be met:

- **Ensure your LIFEPAK device has a valid transmission site enabled.**

- **The LIFENET System must have your LIFEPAK device(s) registered for use with transmission services.**

- **The LIFENET System must have your transmission site name defined identically to that of your LIFEPAK device.**

- **Your receiving target's destination on the LIFENET System must be configured as a Primary target to permit audio uploads.**

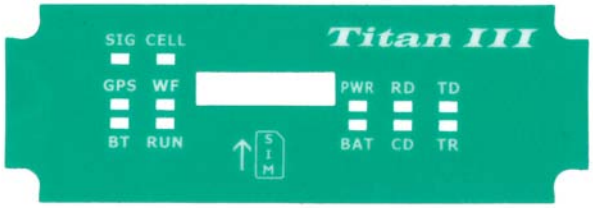
For further details, please contact your local LIFENET System team if you are unsure as to your LIFENET System account configuration.

The destination client also affects whether your audio transmissions will be successful. The LIFENET Alert client does NOT support audio transmissions, whereas the LIFENET Connect client does support audio transmissions. Further, the type of report transmission selected on your LIFEPAK device also determines if audio transmission will be sent. By default, the only report that will permit audio transmissions is CONTINUOUS or ALL. However, under the Advanced Settings, if the option to Upload Audio Continuously Only is deselected, then all report types will permit audio transmissions, including CONTINUOUS, SNAPSHOT, CODE SUMMARY, TREND SUMMARY, VITAL SIGNS and 12-Lead.

Communication connection bandwidth must be determined with the aid of tools available on the internet. To determine the bandwidth of the communication connection you will need to connect to the wireless access point using a desktop/laptop computer. Launch a browser and visit a website such as www.speedtest.net that will allow you to test the upload speed to the internet. Ositech recommends a minimum upload speed of 2.0Mbps for a lightly loaded internet connection.

APPENDIX G: FRONT PANEL LED'S

The Ositech Titan III Gateway front panel, shown below, has a number of LED's to help assist in determining the state of the unit. Not all the LED's are used for the Ositech Titan III Gateway functionality, those that are used are described below.



WF

The WF LED represents the state of the Wifi connection from the Ositech Titan III Gateway to an access point.

Off	**No Wifi connection**
Solid	**Wifi connection with GOOD signal strength**
¼ sec On, ¼ sec Off	**Wifi connection with FAIR signal strength**
1 sec On, 1 sec Off	**Wifi connection with POOR signal strength**

CELL

The CELL LED represents the state of the Cellular connection from the Ositech Titan III Gateway to the cellular provider.

Off	**No Cellular connection**
100 mS. On, 400mS Off	**Airplane Mode (Low Power)**
400 mS. On, 100mS Off	**No service or not authenticated / registered**
5 sec On, 200 mS. Off	**Registered on cellular network**
Solid	**Cellular connection ready for data transmission**

RUN

Whenever the Ositech Titan III Gateway is operating normally the RUN LED will flash On and Off every one second. If the RUN LED is always Off or always On this is an indication that the Ositech Titan III Gateway is in an unknown state.

PWR

The PWR LED will be On whenever power is applied to the Ositech Titan III Gateway.

RD & TD

The RD & TD LED's will flash whenever the Ositech Titan III Gateway is communicating with the attached LIFEPAK device.

CD

The CD LED will illuminate solidly during periods of audio recording. This LED will cease to illuminate if not recording audio.

TR

The TR LED will illuminate solidly while connected to a powered on LIFEPAK device.

APPENDIX H: EXPECTED AUDIBLE RESPONSES

This appendix describes the various audible responses that are possible with the Ositech Titan III Gateway.

Scenario 1: Successful Transmission (Without Audio Transmission)
In this scenario, when a successful transmission has occurred, you will hear two high toned beeps followed by two low toned beeps, as a signal of your success. This sequence will repeat five times. During the transmission process, the LIFEPAK device will visually provide you an indication, as a percentage, of the completed transmission. When complete, the LIFEPAK device will indicate Transmission Completed.

Scenario 2: Successful Transmission (With Audio Transmission)
In this scenario, when an audio upload is in progress, you will hear a monotone beep every 5 seconds, by default, until the audio upload has completed. Once the audio upload has completed, and the overall successful transmission has occurred, you will hear two high toned beeps followed by two low toned beeps, as a signal of your success. This sequence will repeat five times. During the transmission process, the LIFEPAK device will visually provide you an indication, as a percentage, of the completed transmission. When complete, the LIFEPAK device will indicate Transmission Completed. Please note, the rate of beeps to indicate audio upload transmission in progress, defaults to one monotone beep every 5 seconds; however, this rate is user changeable, and this rate could differ if you have altered this setting via the Configuration utility.

Scenario 3: Failed Transmission
In this scenario, if you experience an unsuccessful transmission attempt, you will hear a series of three slow monotone beeps, as your indication of the failed transmission attempt. The LIFEPAK device will then indicate Transmission Failed and reattempt transmission up to three times.

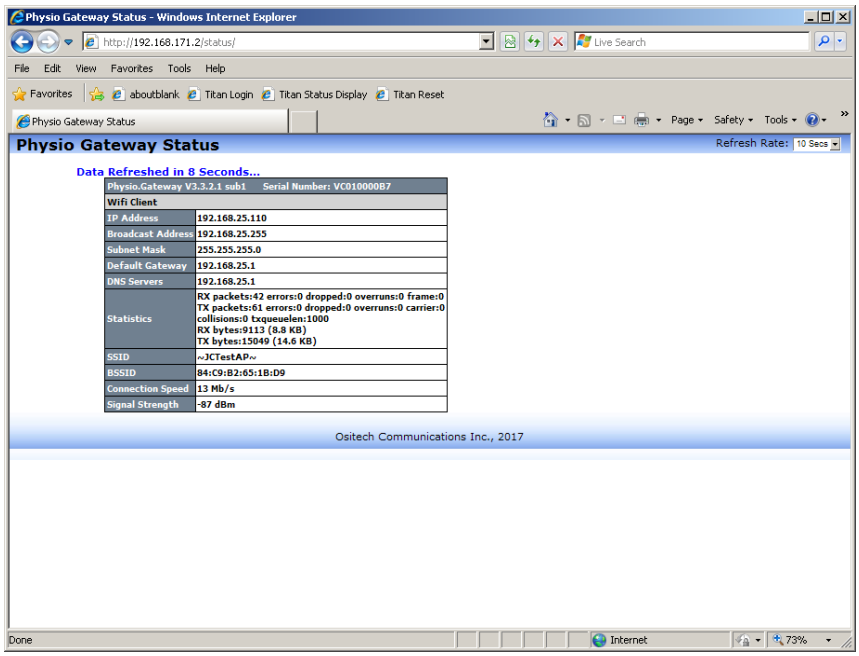
Scenario 4: Your Ositech Titan III Gateway is Unregistered.
In this scenario, if your Ositech Titan III Gateway has not been registered, and the Gateway is powered on, you will hear a series of ten fast monotone beeps. This situation will occur if you power on the Gateway without it being registered on the LIFENET System.

Scenario 5: An audio recording has commenced.
In this scenario, if your Ositech Titan III Gateway has commenced an audio recording, you will hear the audible response, two fast monotone beeps followed by a half second pause then another two fast monotone beeps. This situation will occur if an audio recording has begun.

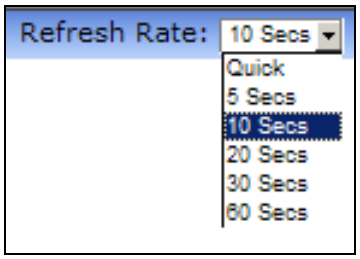
APPENDIX I: STATUS PAGE

The Status Page provides extensive diagnostic and statistical data regarding the current operations of the Ositech Titan III Gateway. Access to the Gateway Status Page is made conveniently through Internet Explorer. Once you launch Internet Explorer, you may access the status page directly with the following URL; http://192.168.171.2/status.

The Status Page will now appear. From here, you can view the various statistics related to your Gateway and the current active wireless function.



Refresh Rate. There is a user selectable option to adjust the Refresh Rate of the Status page. The default refresh rate is 10 seconds; however, if you prefer an alternate refresh rate, simply pull down the selector and make your selection. The selectable refresh rates include Quick, 5 seconds, 10 seconds (Default refresh rate), 20 seconds, 30 seconds, and 60 seconds. The Refresh Rate defines how often this page is updated with current informational statistics.

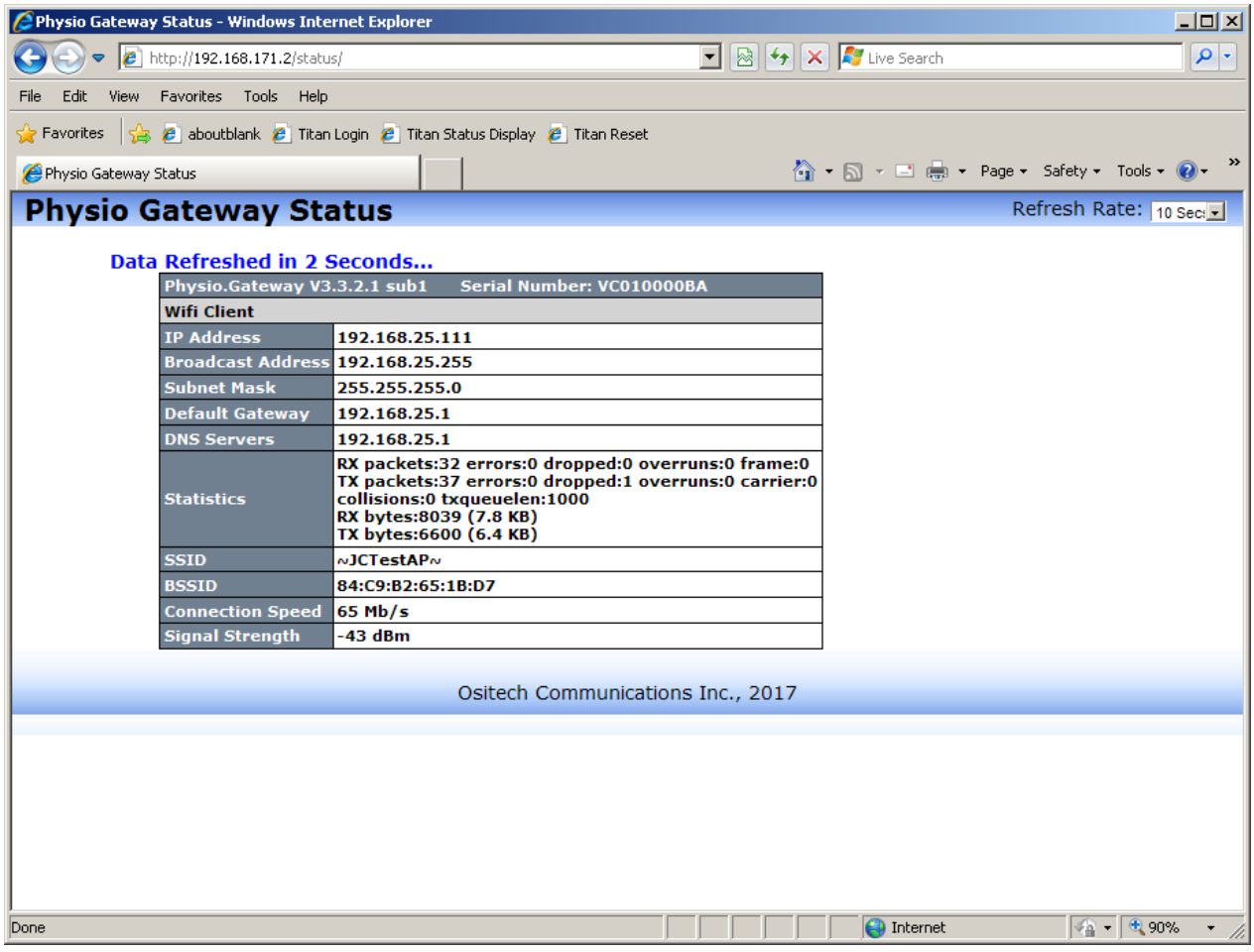


At the top of the status page, you will observe the Gateway firmware version, as well its associated electronic serial number. This information is provided for your convenience.

Physio.Gateway V3.3.2.1 sub1	Serial Number: VC010000BA

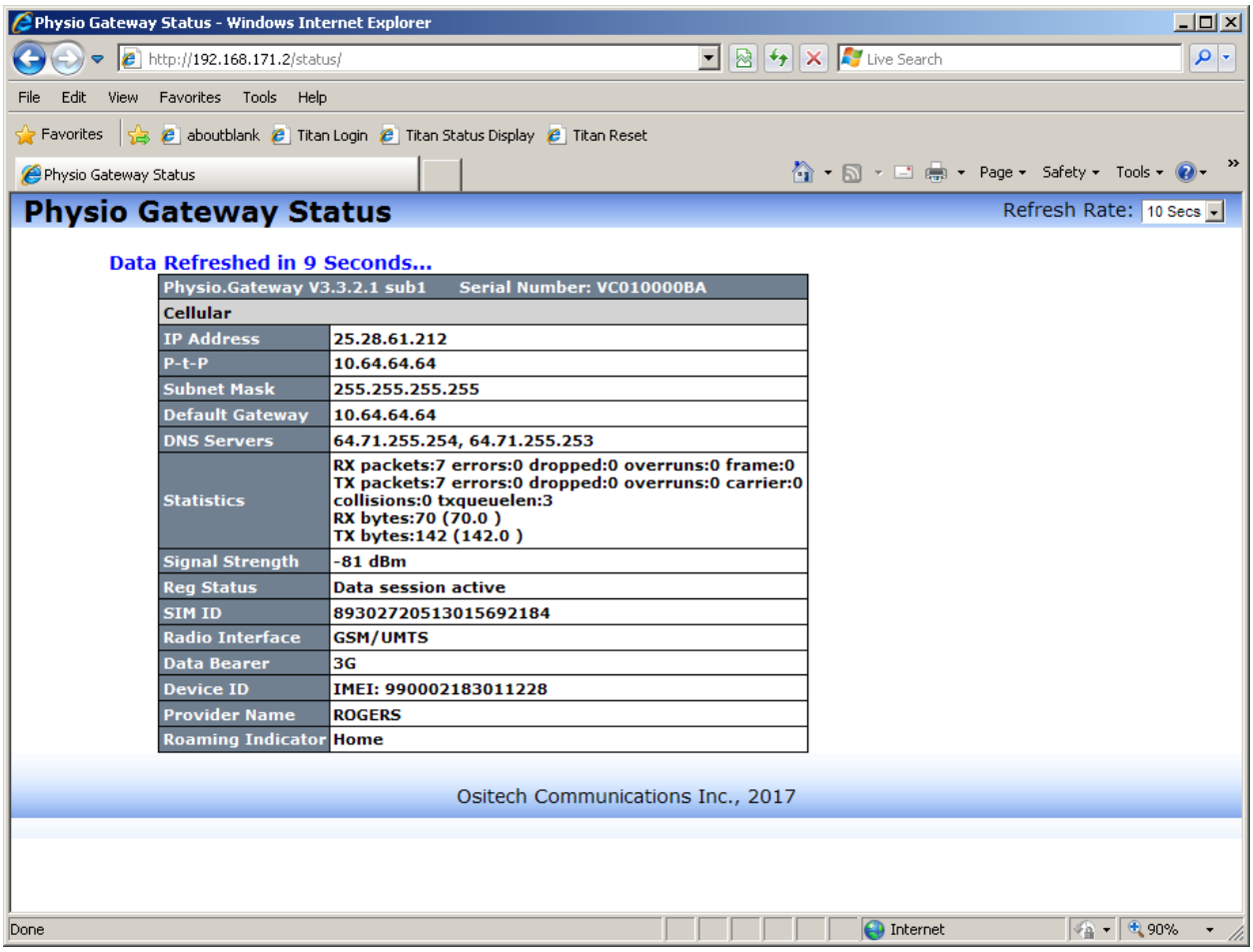
The Wifi connection details provided include the acquired IP parameters (IP Address, Broadcast Address, Subnet Mask, Default Gateway and DNS Servers), Transmit and Receive Statistics, the SSID and BSSID that the Gateway is currently associated with, the current Wifi Connection Speed, and the Wifi Signal Strength (in –dBm).

In this example, the Gateway is currently operating with a Wifi connection, and is displaying the Wifi statistics accordingly. You will also observe that the Cellular statistics are not listed, since a cellular connection is not active at this time.



The Cellular connection details provided include the acquired IP parameters (IP Address, P-t-P Address, Subnet Mask, Default Gateway and DNS Servers), Transmit and Receive Statistics, Signal Strength (in -dBm), the Registration Status, the SIM Card ID, the Radio Interface, the Data Bearer, the Device ID (the IMEI of the cellular radio during UMTS operations or the MEID of the cellular radio during CDMA operations), the Provider Name and the Roaming Indicator. Please note, the full cellular details cannot not be provided until a valid cellular connection has been established.

In this example, the Gateway is currently operating with a Cellular connection, and is displaying the Cellular statistics accordingly. You will also observe that the Wifi statistics are not listed, since a Wifi connection is not active at this time.



**** Please note, RSSI Cellular Signal Strength, as indicated above, is stated as a numeric dBm value. In the example above, the RSSI Cellular Signal Strength is -81 dBm.**

APPENDIX J: UNDERSTANDING TRANSMISSION CONNECTIONS

The Ositech Titan III Gateway has been designed to allow the user to define the optimum connectivity path to the LIFENET System via the Internet connection it maintains. The connection list contains all the possible connections, Wifi and/or Cellular, that can be attempted. Entries on the connection list are prioritized from the highest to lowest priority. Whenever the Ositech Titan III Gateway starts to send data (Audio and/or ECG) to the LIFENET System it will determine based on its current state, what actions to perform. The table below summarizes what actions occur based on the current state of the Ositech Titan III Gateway.

Current State in order of Priority	Actions	Description
Not Connected	Attempt to make a connection	The connection attempt will start with the connection defined at the top of the connection list (highest priority), then continue to attempt to make a connection by stepping through the connection list until the last entry on the connection list (lowest priority) has been attempted, or a successful connection is made.
Recently Connected	No action will be taken	If a connection was recently made (within approximately 30 seconds) chances are high that attempting to improve the connection will result in the same connection.
Wifi Connected	If audio data needs to be sent and the current Wifi connection does not support large uploads, disconnect the current connection. Re-attempt a new connection.	If the user triggers audio data to be uploaded it is assumed that they are situated such that a higher priority connection than the current connection would result, which allows for the audio to be uploaded.
Cellular Connected	If audio data needs to be sent and the cellular connection is not configured to allow audio uploads, do a Wifi scan to determine if any Access Point is in range that has a higher connection priority than the cellular connection. If an Access Point is found, disconnect the current connection. If audio data needs to be sent and the cellular connection is configured to allow	Whether uploading audio only or audio and ECG data, a WiFi scan is done to see if a higher priority connection can be used to see if a suitable WiFi connection can be made to enable faster uploading.

	audio uploads, do a Wifi scan to determine if any Access Point is in range that has a higher connection priority than the cellular connection and also allows audio uploads. If an Access Point is found, disconnect the current connection… **If only ECG data needs to be sent, do a Wifi scan to determine if any Access Point is in range that has a higher connection priority than the cellular connection. If an Access Point is found, disconnect the current connection.**	

Based on the table above, the programming of the connection list is critical to having the Ositech Titan III Gateway connect for optimum operation. Here are some key points to keep in mind while creating the connection list.

- **Always make the lowest priority connection a Cellular connection. A cellular connection is slower and less reliable than typical Wifi connections.**
- **Wifi connections for Wireless Networks (Access Points) that are primarily used during normal operation should have a higher priority. If there are cases where two Wireless Networks have overlapping coverage, make sure that the Wireless Network that you would favor has the higher priority.**
- **Minimize the number of Wifi connections that are configured for Wireless Networks with an invisible SSID. It takes longer to determine if these Wireless Networks are in range, making traversing the connection list slower.**

Example

An EMS crew has Wifi access at their station, while in-vehicle, and at one hospital that they service. The in-vehicle Wifi access uses cellular as its connection to the internet; both the station and hospital Wifi use high speed internet connections. The hospital Wifi is configured with an invisible SSID. Let's assume that the Ositech Titan III Gateway is equipped with both Audio and Cellular capabilities. Audio can be uploaded to the LIFENET System either at the station or the hospital; it will not be allowed via cellular or over the in-vehicle Wifi due to speed and cost considerations.

Here is a recommended connection list configuration

Station	**(large uploads enabled, SSID visible)**
In-Vehicle	**(large uploads disabled, SSID visible)**
Hospital	**(large uploads enabled, SSID invisible)**
Cellular	**(large uploads disabled)**

Whenever the LIFEPAK device is powered on in the station a connection will always be made to the station Wifi even if the in-vehicle Wifi is in range. When the EMS crew is on-site at an incident the in-vehicle Wifi will be used if in range; otherwise the cellular connection will be used if possible. If cellular was used on-site and while en-route to the hospital another transmission is required, the connection will switch to the in-vehicle Wifi. Once at the hospital, if a transmission needs to be made it will be done over the in-vehicle Wifi connection if in range, otherwise over the hospital Wifi if in range and finally over cellular if possible. Audio data can be uploaded when connected to the Station or Hospital Wifi; otherwise ECG data will only be uploaded.

APPENDIX K: REGULATORY COMPLIANCE INFORMATION

FCC DECLARATION OF CONFORMITY:

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- **Reorient or relocate the receiving antenna.**
- **Increase the separation between the device and the receiver.**
- **Connect the device into an outlet on a circuit different from that to which the receiver is connected.**
- **Consult the dealer for an experienced radio/TV technician for help.**

This device complies with part 15 of FCC rules. Operation is subject to the following two conditions:

1. **This device may not cause harmful interference.**
2. **This device must accept any interference received, including interference that may cause undesired operation.**

This device is only to be installed by qualified personnel. Changes or modifications that are not expressly approved by the manufacturer could void the user's authority to operate the device.

RF Exposure Information:
This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 centimeters or 7.87 inches during normal operation.

IC DECLARATION OF CONFORMITY:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. **This device may not cause interference, and**

2. **This device must accept any interference, including interference that may cause undesired operation of the device.**

This device complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance of 20 centimeters or 7.87 inches from all persons.

This Class B digital apparatus complies with Canadian ICES-003.

EU DECLARATION OF CONFORMITY:

Hereby, Ositech Communications Inc. declares that the Titan III Gateway is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

https://www.ositech.com/regulatory-titan-iii-gateway-eu-declaration-of-conformity/