i-tiva

Install & User Guide

A guide to installing and using **i-tiva v2.3**

Notes:

- All TALKINGtech documentation has standardised terminology and is not region specific
- All TALKINGtech documentation is formatted as A4 paper size

Contents

Introduction

The purpose of the Install & User Guide is to give libraries an overview of the i-tiva v2.3 system and how it works. This document is also used by IT staff involved in the implementation of i-tiva and for future reference by Library System Administrators.

i-tiva is an automated renewal and notification system solution developed by TALKINGtech for libraries worldwide. Using i-tiva, libraries deliver notices to users over the telephone instead of using the traditional paper notice method. i-tiva can also add valuable dial-in services that enable users to renew items and check their account status.

To facilitate this, a computer is installed at the library premises containing specially developed software. Voice messages are recorded onto the computer in a friendly, natural voice, in a format that is compatible with telephony. The i-tiva computer communicates with the LMS and interacts with user information, retrieving the details required to make call-outs.

This document will instruct libraries on the features of i-tiva, how to make changes to the i-tiva system, update information and gather reports. This guide also provides troubleshooting, support, and installation information.

Finally, please note that there are many i-tiva v2.3 documents and software (and their relevant descriptions) located at the TALKINGtech Library Portal:

http://i-tivadownloads.talkingtech.com/index.html

Some of the items you can find on the website are:

- i-tiva Installer.
- Product Release Notes.
- i-tiva Installation Documents.
- i-tiva SIP2 Specification.
- i-tiva MESSAGE Specification.
- MESSAGE and CONNECT Call Flows.
- Spanish and French Prompt Lists.

i-tiva Installation Requirements

Hardware and Operating System Requirements

Hardware requirements for systems with 4 ports or less:

- Dual Core with 2.3 GHz or faster.
- 2 GB of RAM or more
- 100 GB of available hard drive space.
- Network Interface.
- One free full-height / full-length PCIe slot available if using the D/41JCT-LSEW Dialogic Card. Full-length Dialogic cards are 12.5 inches long (32 cm) with the metal bracket removed, or 13.5 inches (34.5 cm). Please consult with your hardware vendor to ensure that the Dialogic card can fit into the chassis of your server.
  OR
- One free full-height / half-length PCIe slot available if using the D/4PCIU4S Dialogic Card.

Hardware requirements for systems with 5 to 8 ports:

Recommended Requirements

- Dual Core with 2.7 GHz or faster.
- 4 GB of RAM or more.
- 100 GB of available hard drive space.
- Network Interface.
- Two free full-height / full-length PCIe slots available if using the D/41JCT-LSEW Dialogic Card. Full-length Dialogic cards are 12.5 inches long (32 cm) with the metal bracket removed, or 13.5 inches (34.5 cm). See Dialogic Cards for more information. Please consult with your hardware vendor to ensure that the Dialogic card can fit into the chassis of your server.
  OR
- Two free full-height / half-length PCIe slot available if using the D/4PCIU4S Dialogic Cards.
  OR
- One free full-height / full-length PCIe slots available if using the D/120JCT-LSEW Dialogic Card. Full-length Dialogic cards are 12.5 inches long (32 cm) with the metal bracket removed, or 13.5 inches (34.5 cm). See Dialogic Cards for more information. Please consult with your hardware vendor to ensure that the Dialogic card can fit into the chassis of your server.*

Hardware requirements for systems for 8 ports or more:

Please contact the supplier of i-tiva for hardware specifications on systems with 9 or more ports.

Dialogic Cards Supported

- Dialogic D/41JCT-LSEW (PCIe) card for 4 ports or less (analogue).
- Dialogic D/4PCIU (PCIe) card for 4 ports or less (analogue).
- Dialogic D/120JCT-LSEW (PCIe) for between 9 and 12 ports (analogue)*
- Dialogic D/240JCT or D/480JCT for ISDN Lines (North America)**
- Dialogic D/300JCT or D/600JCT for ISDN Lines (Europe, Australasia)**
- CT Bus cable if the library is using two more of the D41JCT-LSEW card being used. See Installing the Dialogic card for more information.

**The D/120JCT has 6 physical RJ-14 ports on the rear of the card, of which two phone lines are handled by each port, thus producing 12 lines in total. Contact support for line wiring instructions.*

***These Dialogic Cards use a Digital ISDN interface. See Telephony Requirements Below for more information about ISDN.*

Optional – SQL Server

The library can optionally provide a retail (full) version of Microsoft SQL Server 2005 or 2008. i-tiva comes with Microsoft SQL Server 2008 Express Edition, which also comes with many performance limitations. While this version works great for systems with less than 8 ports, these limitations can affect the reporting of larger i-tiva systems, especially if the library chooses to retain a lot of historical data. This will appear as reporting timeouts while i-tiva is dialling outbound or a long time period of time to generate reports in Express Reporting. SQL performance issues are complex and can be a combination of many factors, including disk bandwidth and configuration, and the amount of historical data you wish to retain.

We recommend that systems that are going to be using 8 or more MESSAGE ports use a retail version of Microsoft SQL Server. These instances of SQL Server are provided by the library and may already exist within the library environment. This requires the library to configure and setup the SQL server; there are two reference guides (see Installing i-tiva Software) that can help guide the library through the configuration.

If you are interested in providing your own version of SQL Server then there are two options available:

Option 1: Operate the full version of SQL Server on the i-tiva system. SQL Server is a large enterprise application and often does not share system resources very efficiently. To ensure that the system operates effectively with i-tiva, TALKINGtech will have to review and approve the hardware that will be utilized.

Option 2: Operate SQL Server on a separate database server. This server can either be a dedicated server to host the i-tiva databases or part of your current SQL Server environment. If you are interested in using a remote database system it is good to note that the product is becoming dependent upon an IT environment (SQL Server, SQL Server hardware, and network) that is outside to the scope of the support agreement with TALKINGtech. Should any of the IT environment fail – even a short outage– it will impact i-tiva and i-tiva may stop functioning until it can be restarted. We expect that the IT environment that i-tiva is functioning in to be very reliable. Any troubleshooting by TALKINGtech due to an IT environment failure can be chargeable.

If you wish to use a full version of SQL Server then please consult with your i-tiva Project Manager.

Location Requirements

As **i-tiva** is a computer and installed on the client premises, there are some location requirements that need to be taken into account. Location considerations are as follows:

- Enough space to have the computer, monitor, keyboard and mouse on a desk area or suitable rack if rack mount server is ordered.
- Located within two metres of a functioning network connection.
- Located within two metres of the telephone lines required for dialing.
- Uninterrupted power supply.
- Well-ventilated and dry room.
- Secure area with limited access.

Operating System Requirements

i-tiva v2.3 is only compatible with:

- Microsoft Windows Server 2003 R2 – Standard Edition (32-bit).
- Windows Server 2008 R2 – Standard Edition (64-bit).
- Windows Server 2008 R2 – Enterprise Edition (64-bit).

Client Software Requirements

Certain i-tiva tools can be installed on the workstations of library staff. The following are the software requirements for the tools:

i-tiva Web Tool

To access i-tiva WebTools over a network connection

- Internet Explorer 7.0 or greater (Internet Explorer 8 Recommended).
- Recommend screen resolution is 1280 x 1024.
- Network Card.

i-tiva Express Reporting

Installed on library PC

- Pentium 3 or better running Windows XP or later.
- Microsoft .NET Framework 2.0 installed.
- Approximately 50MB of Hard Disk Space.
- 128MB or RAM or more.
- Network Card.

i-tiva Recording

Installed on library PC

- Pentium 3 or better running Windows XP or later.
- Microsoft .NET Framework 2.0 installed.
- Microsoft Internet Explorer 5.01 (or later).
- Approximately 50MB of Hard Disk Space.
- 128MB of RAM or more.
- Sound Card (with appropriate drivers installed).
- Microphone of reasonable quality.
- Speakers or headphones of reasonable quality.
- Network Card.

Telephony Requirements

i-tiva v2.3 can use either digital or analogue telephone lines.

Digital Telephone Lines

i-tiva v2.3 supports digital telephone lines. Digital lines have many advantages over Analogue PSTN lines, including:

- Call progress detection for outbound calls is more accurate which improves dialling results;
- Offers more ports for larger systems;
- Better voice quality then traditional analogue ports.

Europe and Australasia

i-tiva is only compatible with ISDN PRI (PRIMARY) rate E1 lines. An ISDN E1 line is made up of 32 Ports of which 30 are used for voice (two are used for digital signalling and alarms between the carrier and the library).

North America

i-tiva is only compatible with ISDN PRI (PRIMARY) rate T1 lines. An ISDN T1 line is made up of 24 Ports of which 23 are used for voice (1 is used for digital signalling between the carrier and the library).

If you are interested in using digital telephone lines (T1 or E1) then please talk with your project manager, or refer to the portal (where relevant documentation for T1 / E1 is available) for more information – it is important that the lines are set up correctly for use with i-tiva.

MESSAGE Analogue Phone Lines

TALKINGtech requires stand-alone analogue PSTN (Public Switched Telephone Network) telephone lines or PSTN equivalent lines. If going through a PABX (Private Automatic Branch Exchange) these lines should provide call analysis similar - if not identical - to a PSTN phone line. This is very important as i-tiva uses call timings, tones, line voltage and line loop current (called Call progress Analysis) to determine what occurs during the MESSAGE phone call and any of these factors being incorrect will affect the quality of the calls. If the library is using PABX lines that are not equivalent to PSTN lines then TALKINGtech may charge for troubleshooting and support costs. Furthermore the quality of the system from the patron's perspective will be compromised and the library may receive patron complaints. For best product quality and product support it is highly recommended that the library use PSTN lines for MESSAGE.

Call Progress Analysis is tuned for the region that it is operating in. In certain cases third party equipment between i-tiva and the end user can affect the Call Progress Analysis and affect the quality of the user experience. For accurate Call Progress Analysis the lines should have loop current reversal enabled (see Port Settings) - this feature is only available on phone lines provided in New Zealand, Australia, and the United Kingdom.

CONNECT Analogue Phone Lines

CONNECT functionality could be provided through PABX Lines.

Recommendations are:

- For the most efficient use of ports, a disconnect tone should be provided to indicate that the calling party has hung-up. Libraries will need to ensure that this feature is included on designated phone lines.

- We suggest the use of a "hunt-group" on the PABX or Exchange providing the phone lines, in order for one phone number to be advertised to callers, and for incoming calls to be assigned to the next free i-tiva line.

- CONNECT lines must be all of one type. For example, phone lines cannot be mixed with internal telephone system PBX lines. This is due to global system settings (not per port settings) for transfer numbers and tone definitions.

- If Transfer to Operator or Transfer Menu functionality is to be used, then an unsupervised blind transfer function must be available on all Connect lines. Generally, i-tiva will transfer calls by performing a hookflash on the line (time break recall), dialling the number that the transfer is going to, and then hanging up. Timing parameters are available to change the length of the hookflash and the delay until i-tiva hangs up. Earth break recall will not work. Once the call has been transferred it is up to the library to manage the call to prevent it from looping back to the i-tiva system. Some libraries ensure the call goes into a queuing system if extensions are busy.

Installing i-tiva

The following section takes you through the process of preparing Windows for i-tiva, installing the Dialogic card, installing i-tiva, and finally testing the installation.

Preparing Windows for i-tiva

Windows Notes:

- Do not name the computer *Talkingtech*, or (if installing on Server 2003) create a user account with that name. i-tiva requires this account name to operate some of the software, and it will be created it during the i-tiva install. Please rename the system if this is the case.

- Be very careful when naming the computer as **the computers name cannot be changed after the i-tiva software has been installed**.

- It is **mandatory** for the system to be installed and operated while not associated with a Microsoft Active Directory Domain. An Active Directory Domain can place restrictions on the software which can result in unusual (and incorrect) behaviour in i-tiva. The system must be independent of the network domain, installed under the local Administrator, with no group policy objects applied.

1) Apply Windows Updates

Fully update the Windows Operating system with the latest patches and service packs.

Open *Internet Explorer*. Navigate to http://windowsupdate.microsoft.com and follow the onscreen instructions.

2) Setup Security Software

i-tiva can run with certain types of security software in place, and this is often recommended. We do require that you follow some general guidelines when it comes to the security software. Please see the section on Security Considerations, for specific instructions on how to do this. Due to the nature of security software, the software may interfere with i-tiva and cause unusual behaviour. In this case TALKINGtech may require that you disable the software, modify the configuration of the software, or disable certain functionality of the software.

3) Enable Local Firewall

Enable the built-in Windows Firewall on the system (if available) to prevent any network-spreading viruses or worms. i-tiva is configured to open the required ports based on the functionality installed.

4) If installing on Windows 2003, install Internet Information Services (IIS)

It is required that IIS is installed prior to install because of the web based nature of i-tiva.

If you are installing the system on Windows Server 2003 then you may already have IIS installed. To check that IIS is installed:

- Navigate to the *Windows Control Panel*.
- Double click *Add or Remove Programs*.
- Click *Add/Remove Windows Components* to the left hand side of the window.
- Select *Application Server* and then the *Details* button.
- Check that *Internet Information Services (IIS)* and *ASP.net* has a check mark on the left hand side. If not, check *Internet Information Services (IIS)* and *ASP.net* and Select *OK*.

Note: If you are installing the system on Windows Server 2008 then IIS will be installed as part of the prerequisite installer.

Installing the Dialogic Card

In most cases TALKINGtech requires that you install Dialogic hardware before installing i-tiva. If the system is an SMS only library then you do not require the dialogic card to be installed and you can skip this step.

To reduce the risk of electric shock:

- Switch off the power and remove power cords before opening the computer case.
- Do not re-attach power cords or switch on power to the computer while the computer case is removed.

Please follow these instructions to insert the Dialogic card into the PC:

- Discharge the static that you may be carrying on your body by either holding onto a part of the metal chassis, or by connecting an anti-static strap from your wrist to the metal chassis.
- Prepare a PCI or PCIe slot for the card to be inserted. This usually requires the metal cover of the PCI or PCIe slot to be removed and internal PC cables to be moved to allow for the card.
- Firmly slot the card into the PCI or PCIe slot, and ensure that both ends are properly seated. Also check - and adjust if necessary - that the screw hole at the top of the card is properly aligned and is fastened tightly.
- Close the PC case and boot the system into Windows. You should receive a Windows Hardware Installation pop-up if the card has been installed correctly. **Important:** Cancel the Windows hardware setup – the driver and components required for the Dialogic card will be installed with i-tiva.

Notes:

- Any system that utilises more than a single Dialogic card will also require a CT BUS cable to be installed. For more information on how to install the CT BUS cable, please refer to the Quick Install Guide that is packaged with the Dialogic card. Alternatively the Quick Install Guides can be found at the Dialogic website (www.dialogic.com).
- There is a known issue with Dialogic Boards where they may not be powered correctly depending on which size PCIe slot and which specific power budgeting jumper settings are set. Hewlett-Packard (HP) Server grade hardware appears to be particularly partial to this problem. Please See Appendix A - Known Installation Issues for information on how to resolve this issue.

Installing the i-tiva Software

Once you have prepared Windows for the i-tiva installation and the Dialogic card has been installed, the i-tiva software can be installed.

If you plan on installing with a distributed database (database on a different system), please consult the following two reference guides for further information. Please note that the instructions found in the Remote DBA Installation Notes must be implemented prior to the software being installed.

Reference Guides:

- Appendix B – *Distributed Database Installation Guide*: Provides instructions on how to configure i-tiva to work with a remote database.

- *Remote DBA Installation Notes*: Provides instructions for a DBA to configure a database to allow a remote i-tiva installation to connect to it.

The software is downloaded from the i-tiva download portal. Please note that the download is quite large and may take several hours to download. The installation is divided into two distinct steps: installing prerequisite software and installing i-tiva software. This install will require about an hour and the system will need to be restarted several times.

The below instructions are for an installation where i-tiva is operating on a standalone system using typical configuration. Please see Appendix B if using a distributed database.

Notes:

- There is a known issue with installing i-tiva on Microsoft Server 2003 through a Microsoft Remote Desktop (RDP) Connection. When installing on this Operating System, please install i-tiva 2.3 while connected locally or through Symantec pcAnywhere.

Typical Installation Steps

1. Login as the Local Administrator **-** The system software must be installed under the Local Administrator account.

2. Run the Prerequisite installer **-** Select *setup.exe*. Follow the on-screen instructions.

3. The installer may require you to restart the system during installation; if so, it will ask you to resume the installation after you have logged back in.

4. During the installation the Installer will pop-up to ask you to install the software driver for the Dialogic card. Select *Install* for both of these messages.

5. After the installation finishes, reboot the computer when asked.

6. Login as the Local Administrator again.

7. Run the i-tiva Software installer - Select *setup.exe*. Follow the onscreen instructions.

8. On the *Select Destination page,* keep the *C:|Itiva*. Select *Next*. You will receive a popup saying the folder already exists. Select *Yes.*

9. On the *Select Components* page, select *Standalone Installation.*

10. On the *Select Additional Tasks* make sure that the following are selected (checked):
    - Set Passwords via trusted connection
    - Create Databases
    - Install Databases

11. Select *Next*, and *Install*. Reboot when asked.

Setup Admin Password / Granting Permission

Once i-tiva has been installed the default username and password must be updated and permission granted to the user account to continue to setup and configure the system.

Resetting the Default Admin Password

1. Double click the *User Security Tool* icon on the desktop. The default username/password is 'administrator/xyz'.

2. Select *Change User Password*.

3. Select *Administrator* if not already selected.

4. Type in the new password, confirm password, and click *Apply*.

5. Logout and log in with the new password.

Grant Configuration Permission

1. Double click the *User Security Tool* icon on the desktop.

2. Login using the *Administrator* username.

3. Select *Manage Existing Users*.

4. Search Users box will appear. Type 'admin' and click *Search*.

5. The Administrator user will appear to the right. Click *Edit*.

6. Under *Manage Security*, select *Configuration Tool* and to the right select *Web Tool Administrator.* Click *Add*. You now have the ability to login to the *Configuration tool*.

7. Login to the *Configuration Tool* by double clicking the shortcut on the desktop. Use the updated password.

8. Please refer to the Security tool Configuration for more details on how to configure permissions.

Obtain and Install System License

The licensing system on i-tiva is tied to the system hardware. As such TALKINGtech requires the unique identification of the system hardware before the system can be licensed. Please note that any hardware changes to the system in the future may also require a new license file to be issued.

To obtain a hardware license file you need to send the system-unique Request ID to TALKINGtech to generate the i-tiva license file. The license file then can be uploaded to the system in the Web Tool Interface to properly license the system.

For more information see the i-tiva Licensing System section below.

Obtaining a License File

1. Login to the local system as the Administrator.

2. Double click *i-tiva Licensing* icon on the desktop.

3. Email the Request ID to support@talkingtech.com with the subject "License required: <Library Name>" with the Request ID in the body of the email.

4. A license file will be returned to you via email within 48 hours. Place this in a location on the i-tiva machine.

Installing a License File

1. Open the *Configuration Tool* from the desktop (See Using the i-tiva Web Tools)

2. Navigate to *General* > *Global Settings*.

3. Under *License*, click *Browse* to the right of *Upload License File*, and select the license file on the file system.

4. The license file should upload successfully. You will need to logout and log back in to see the updated modules. You should also restart the i-tiva machine for the license changes to be picked up by the i-tiva services; however, this can be carried out after you have finished configuring the system.

After Installation

Patching i-tiva

Once i-tiva is set up and installed you will need to download and install any hot-fix patches for i-tiva. These can either be applied before the initial setup of i-tiva, or once i-tiva has been configured. If any hot-fix patches are available, these will be provided by TALKINGtech for you to download.

Checking the Version of i-tiva

At the bottom of the Configuration Tool the current version of i-tiva is displayed. Once a patch has been applied this version number will be updated and reflect the current version of i-tiva.

Configuring i-tiva

Once you have installed the license file (and updated the system with the most recent hot-fix patches, if available) the system will need to be configured. The configuration for the particular customer can be found within the Installation documents that they were provided. See Configuration Tool for information about the settings found within i-tiva.

If you run into problems with your installation please see Appendix A - Known Installation Issues.

Final Testing of the Installation

Once the configuration is complete, it is good practice to thoroughly test the entire system prior to Customer Acceptance Testing. If you haven't restarted the system since updating the license file, this should be carried out now.

i-tiva MESSAGE Testing

Set up a test call, preferably using the LMS software, for every message type (singular and plural) that the library will be delivering to its users.

For example, if a library was going to be delivering overdue and reservation messages, then there would be four test calls; a single overdue, a single reservation, a plural overdue, and a plural reservation. This will test all possible call flows a library user could experience.

The following functionality should be tested:

- Custom prompts.
- Import and export process.

i-tiva CONNECT Testing

Using the test barcodes provided in the customer's installation documentation, you should be able to dial into the CONNECT system and make sure all functions are working correctly.

The following functionality should be tested:

- Custom prompts.
- Ensuring the customer's requested functionality is enabled.
- SIP server compatibility.

Please note: For assistance in conducting test calls, please contact Support.

ptTelemsg User Account Testing

A final check should be made of the ptTelemsg user account, to ensure the password is not set to expire, because if this happens none of the i-tiva services will run. These settings can be checked from Administrative Tools -> Computer Management, and under the System Tools -> Local Users and Groups -> Users node, open the ptTelemsg user and check that "User cannot change password" and "Password never expires" are both ticked.

i-tiva Licensing System

i-tiva requires a license to operate. A license both authorizes a physical server to operate i-tiva and controls the functionality that is available. The license is in the form of an XML file which is uploaded to i-tiva through the Configuration Tool.

To ensure that the license file is created for a particular server a request ID must be generated in the first instance. A request ID is a set of characters that uniquely describes the hardware of the destination machine. The request ID software is installed with i-tiva. If the request ID is generated on a different machine other then i-tiva or the hardware within i-tiva is updated, then the license key will fail and the system will be unable to operate until a new license file is generated. It is also good to note that i-tiva checks the license frequently, so hardware changes after the system has been installed will stop i-tiva from operating.

The status of a license key and the licensed modules and functionality can be viewed within the *Configuration Tool* (see Configuration Tool) under *General* > *Global Settings*. If a system is not licensed for a particular feature or module then it will simply not appear in the Configuration Tool.

The functionality of i-tiva is licensed by modules and features.

i-tiva is licensed on the following modules:

- **MESSAGE** - Enable the ability for the system to deliver notifications. Included in this is the number of MESSAGE ports that will be available to the library.
- **CONNECT** - Enable the ability for the system to provide CONNECT functionality to the library. Included in this is the number of CONNECT ports that will be available to the library.
- **SMS** - Enable the ability to deliver SMS notifications.

The following features within the product are able to be licensed:

- **Multiple Extension Transfer (MET):** To enable the ability to configure a MET menu.
- **i-tiva Recording:** To enable i-tiva Recording functionality.
- **CONNECT Multilingual:** The ability for the system to provide CONNECT service in other languages, such as Spanish and French. Included in this is the number of additional languages to include as part of the license; each additional language will need to be licensed individually.
- **MESSAGE Multilingual:** The ability for the system to deliver notifications in multiple languages. Included in this is the number of additional languages to include as part of the license where each additional language will need to be licensed individually.
- **Emailed Reports:** To enable the ability to email reports to configured email addresses.
- **Consortia:** Enables the ability for the system to operate in Consortia mode, allowing multiple libraries to utilize the same system. As part of this functionality the number of member libraries that are part of the consortia that will be using i-tiva for either CONNECT or MESSAGE functionality will need to be specified.

Using the i-tiva System

Starting i-tiva

The i-tiva system runs on top of a standard Windows operating system and starts up and shuts down like any other Windows PC.

The i-tiva system will automatically start when the PC starts up. i-tiva runs as a service and no user is required to be logged in for i-tiva to operate.

Restarting i-tiva

If restarting the i-tiva system, perform a normal windows restart by using the Start menu > Shutdown sequence. Keep an eye on the restart process to ensure that the machine reboots properly.

In the rare event that the system freezes and becomes unresponsive, you may be forced to power-cycle the machine by pressing and holding the power button on the machine to switch it off, and then pressing it again to turn it back on.

Stopping/Starting CONNECT (Inbound) and MESSAGE (Outbound) Services

The CONNECT and MESSAGE services can be stopped from operating through the Configuration Tool. This will prevent phone calls from being answered by or made by i-tiva (respectively). Please login to the Configuration Tool and navigate to *General > System Control*. Select the large *Stop* button to the right of the service you wish to stop. Select the large *Play* button to start the service.

Please note that once the system is rebooted the CONNECT and MESSAGE services will be operational again.

User Applications

There are two user applications on the i-tiva machine that the library administrator will access most often. The i-tiva Web Tools allow the library access into the i-tiva system itself and the Express Reporting application handles the reports for both i-tiva CONNECT and MESSAGE.

i-tiva Web Tools

The i-tiva Web Tools consist of two applications that provide an easy interface through which the library can access their i-tiva system. The different functions of the i-tiva Web Tools are explained throughout this manual.

Express Reporting

This application provides reporting on i-tiva CONNECT and MESSAGE campaigns, but does not need to be open for normal system operation. The reporting program can be opened by selecting *Express Reporting* from the Desktop. For a full description on how to use this program see the section on Express Reporting.

Considerations

Because of the real-time nature of i-tiva, some system controls may become unresponsive. This is due to system components being tied up servicing user requests. In these cases, restart the i-tiva machine (see Restarting i-tiva); if the system is still unresponsive please contact the TALKINGtech Support team.

Using the i-tiva Web Tools

The configuration for i-tiva is conducted through a web interface. This can be done either by accessing the system locally or through the network from another PC using Internet Explorer (version 7 or greater).

The two i-tiva Web Tool applications are:

- **User Security Tool:** To setup and manage web user accounts and libraries.
- **Configuration Tool:** To configure and manage the i-tiva system.

There are two separate methods to access the i-tiva Web Tools:

- **Local:** Shortcuts on the i-tiva computer desktop to access the i-tiva software.
- **Network:** Open Internet Explorer on any PC linked to your library network (see Client Software Requirements) and type in the following URLs:
    - **User Security Tool:** http://<ip or computer name>/usersecuritytool
    - **Configuration Tool:** http://<ip or computer name>/configurationtool

The <ip or computer name> being the IP address or network computer name of the i-tiva system.

In order to connect via the network to i-tiva Web Tools network connectivity is required. If you are unsure on how to connect to i-tiva remotely or you are having trouble, please contact your local network administrator.

Considerations

Your i-tiva supplier will have provided a user name and password that will provide user access to i-tiva. If you do not know your login details for i-tiva please contact your supplier for details.

User Security Tool

The User Security Tool is primarily used to create new user accounts, manage existing user accounts, and change user passwords. To login to the User Security Tool you must have an account with permissions to login to this application. If you're connecting to the Security Tool for the first time then refer Installing the i-tiva software on default username and password.

Creating a User Account

Open the User Security Tool and login using the Administrator Account. Select *Create New User*:

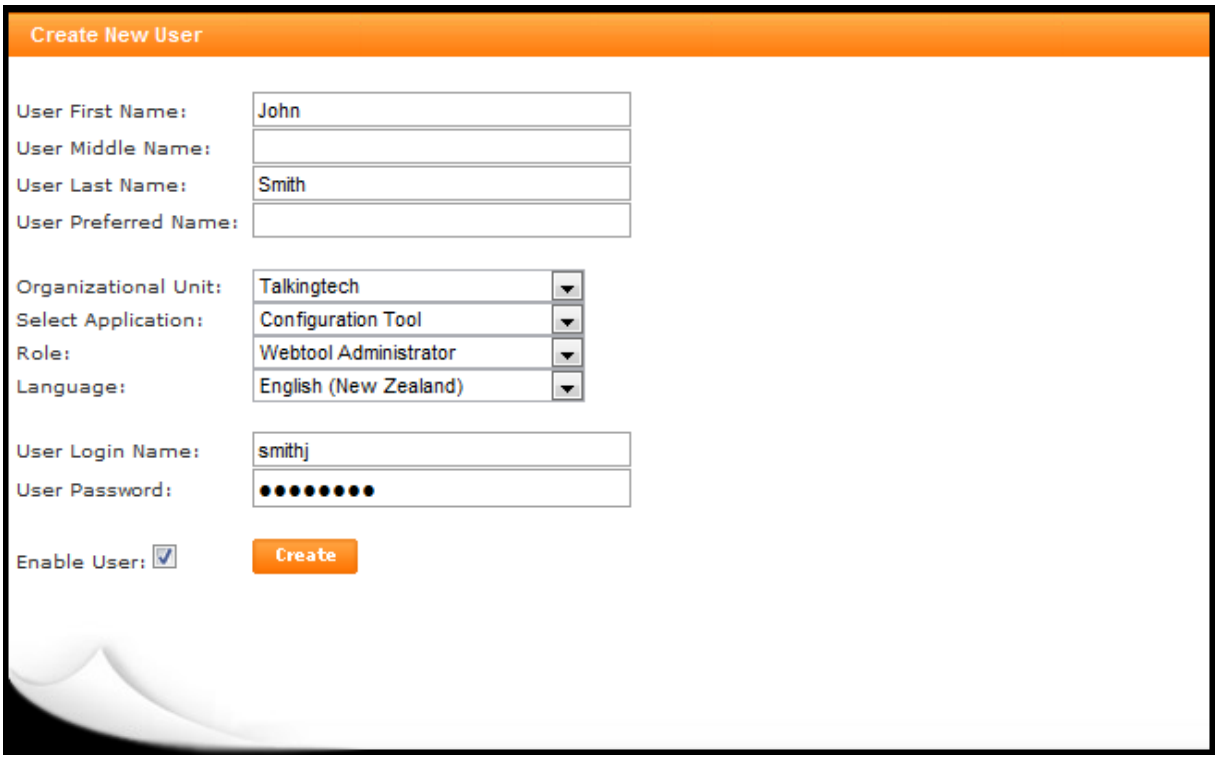


Figure 1 – Create New User page

Fill in the user details – only first and last name are required. Select the Organizational Unit from the dropdown menu. Choose the application you wish the user to access from the Select Application dropdown menu. If you wish to add both applications to the user's account then you will need to add the permissions to their account by managing their account (see below). Select the role that user will use and the preferred language of that user. Then enter the Login Name and password and click Create.

Considerations

The user will be unable to change their own password unless they have access to the User Security Tool.

Managing an Existing Account

This page is used to check or change the details of existing user accounts. Open the User Security Tool and login. Select *Manage Existing Users* and a *Search Users* box will appear. Enter the first name of the user you wish to modify and click *Search*. To list all users then click *Search* without entering any details in the search box. The results of the search will appear to the right. Click *Edit* on the user account you wish to update.

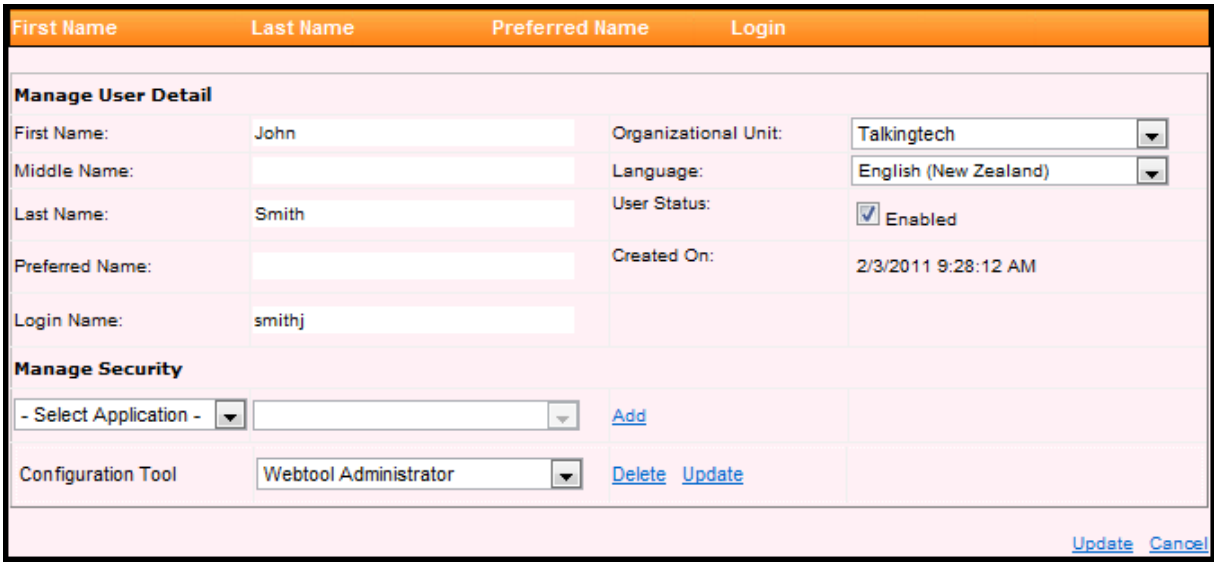


Figure 2 – Managing Accounts

Manage User Detail

This section is used to change details of the user. Upon updating details please remember to click *Update* or all changes will be lost.

Manage Security

This section provides the ability to add or remove access to the User Security Tool and Configuration Tool. For details on the access permissions please contact support. Upon updating any details please remember to click *Update* to the right of the permission box or all changes will be lost.

Change User Password

This page is used to change the user password. Open the User Security Tool and login using the Administrator Account. Select *Change User Password*. From the drop box, select the user whose password you wish to update. Type the new password in the box below. Click *Apply*.

Configuration Tool

The Configuration Tool is used to setup and manage the i-tiva system. To login to the Configuration Tool you must have an account with permissions to login to this application.

Navigating i-tiva

Tabs across the top represent the different modules that are available. You will only be able to view the modules that are licensed to your system.

Figure 3 - Configuration Tool Tabs

- **Status:** Displays the current status of the system, recent campaigns, and recent import/export activity.
- **General:** General configuration settings that apply to the whole system.
- **CONNECT:** Configuration for the CONNECT (Inbound) module. The system will need to be licensed for CONNECT to see this tab.
- **MESSAGE:** Configuration for the MESSAGE (Outbound) module. The system will need to be licensed for MESSAGE to see this tab.
- **SMS:** Configuration for the SMS module. The system will need to be licensed for SMS to have access.

Once you have selected a module the different configuration options are available down the left hand side.

Saving Information

Most pages have a *Save Settings* button. Once you have updated a value on a page you must click *Save Settings* in order for the changes to be saved. Failing to do this will result in losing the updated configuration settings. Any page without a *Save Settings* button will save automatically.

Status

This is the first page that is viewed when you login to the Configuration Tool. This page displays all the basic statistics of the i-tiva system to ensure that it is operating successfully. The majority of the statistics displayed on the page relate to i-tiva MESSAGE. This page also provides some basic functionality to control the campaigns that are being dialled.

Active Work Status

This frame displays the campaign's basic statistics as they have been loaded into the system – the most recent campaigns will be displayed at the top. i-tiva will retain up to seven days worth of statistics in the active work status before they are removed.

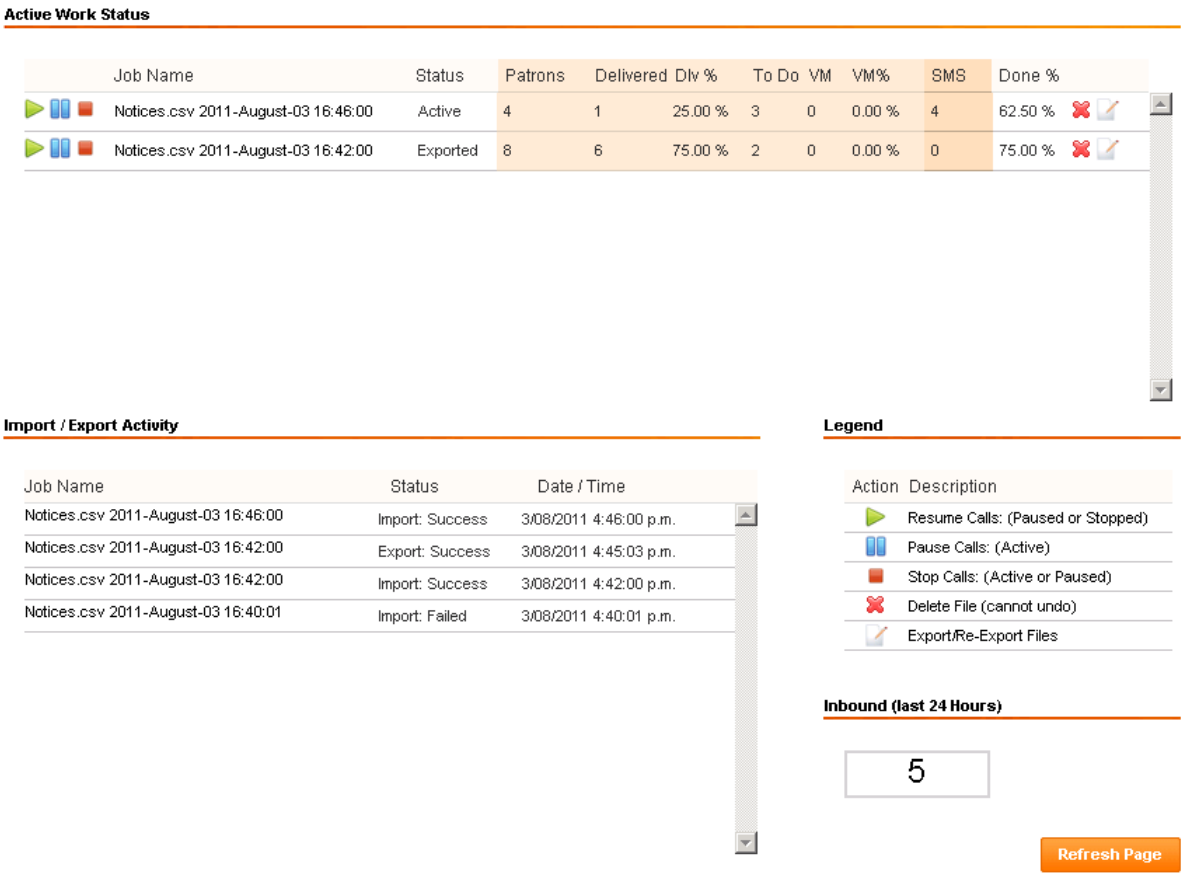


Figure 4 - Status Page

Check i-tiva MESSAGE and SMS Campaigns

The Active Work Status located at the top of the page lists all the outbound i-tiva MESSAGE and SMS campaigns that are currently dialling and the statistics for the campaign so far. The data to the right of the job name explains the metrics of the campaign – you should be able to read the metrics and

evaluate if the system is dialling acceptably or if there is an unreported problem (taking into consideration the typical dialling statistics and the dialling time slot).
A campaign can include SMS and MESSAGE (voice) notifications. The white background represents any data or action that is applicable to the whole campaign and thus both MESSAGE and SMS. The shades of orange represent the data for either SMS or MESSAGE respectively.

Descriptions of the stats are:

- **Play, Pause, Stop icons:** These will play, pause, or stop the campaign. Any stopped or paused campaigns will not resume until play is clicked.
- **Job Name:** Displays the name of the campaign.
- **Status:** Displays the campaign status; Pending, Paused, Stopped, Active, Complete, or Exported.
- **Patrons:** Displays the total number of patrons to be contacted in the campaign.
- **Delivered:** Displays the number of patrons that have had their notifications delivered.
- **Dlv %:** Displays the percentage of MESSAGE notices delivered.
- **To Do:** Displays the number of patrons for which there are still attempts to be made.
- **VM:** Displays the number of patrons that had voicemail deliveries.
- **VM %:** Displays the percentage of patrons that have had their notifications delivered to voicemail.
- **Done %:** Displays the number of patrons that are either contacted or there are no more attempts to dial.
- **SMS:** The number of SMS messages that have been imported and delivered as part of the campaign. SMS messages are considered delivered automatically when they are imported and processed by i-tiva. This number counts towards the total *Done%* of the campaign. Please note that even though the SMS is automatically considered delivered, the SMS messages will not be sent to the user's phone until the appropriate time window.
- **Red and White Cross icon:** This button will delete the campaign from the queue.
- **Pencil and Paper icon:** This button will reset the status of an Active or Exported job to complete, so that it will be exported at the next opportunity.

Check Import / Export Activity

The Import/Export Activity is located midway down the page and displays all imported and exported campaigns for the i-tiva MESSAGE system. Each campaign should go through a cycle of Import, Dialling, and then Export. If there is a failure in the Import or Export processes then it will show up

here. It is important that Import or Export failures are picked up quickly, because a delay could mean that patrons are not contacted.

Check i-tiva CONNECT Activity

In the bottom right hand corner of the page there is a number that displays the number of CONNECT (inbound) calls in the previous 24 hours. If this number is lower than expected then it may indicate there is a problem with the i-tiva CONNECT system.

General

This page is used to set up the general system requirements that are used throughout the i-tiva system. The i-tiva standard accent prompt set to use is designated here, or alternatively customised prompts can be installed for all module options, overwriting existing standard prompts.

Global Settings

Use this section to select country, vendor mode and upload licence keys.

> *To access this option, open the Configuration Tool and go to 'General' in the menu bar. Click on 'Global Settings' on the left navigation bar.*

Global Settings

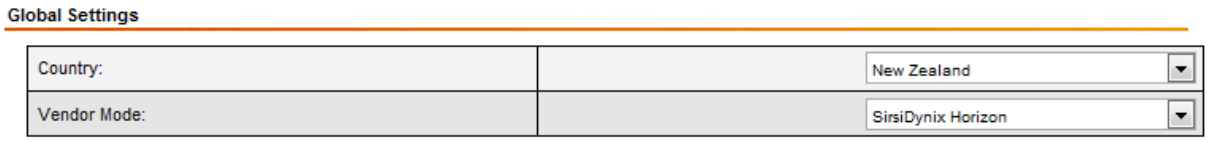


Figure 5 - Global Settings

- **Country** (Default = New Zealand): A country setting is needed in order to determine the Dialogic card telephony requirements. Detection and setup of the Dialogic service is dependent upon this setting and it is very important that it's correct.

- **Vendor Mode:** Select the Vendor to determine the interface settings and requirements.

License

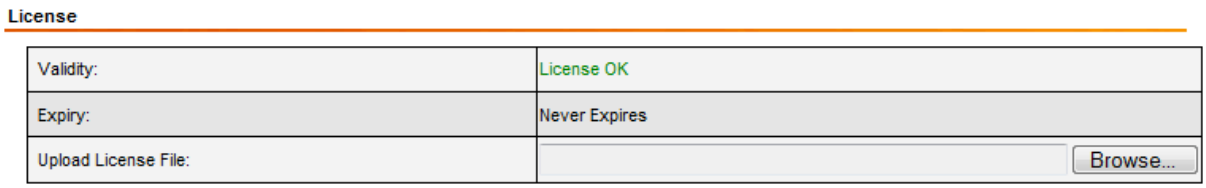


Figure 6 - License

- **Validity:** Displays the current status of the license file.

- **Expiry:** The expiry date of the current license file.

- **Upload License File:** You are able to upload or replace the license file on the i-tiva system. The license file determines the system functionality that is available for the library.

Licensed Modules

Licensed Modules

Total Ports:	4
CONNECT:	2 Ports Licensed
MESSAGE:	2 Ports Licensed
SMS:	0 Ports Licensed

Figure 7: Licensed Modules

- **Total Ports:** Total number of ports licensed for the system.
- **CONNECT:** Total number of CONNECT ports that are licensed.
- **MESSAGE:** Total number of MESSAGE ports that are licensed.
- **SMS:** Since SMS doesn't require ports to work, even when licensed it will show up as "0" ports.

Licensed Features

Licensed Features

Multiple Extension Transfer:	Licensed
CONNECT Recording:	Licensed
CONNECT Multilingual:	Licensed, 1 additional languages
MESSAGE Multilingual:	Licensed, 1 additional languages
Emailed Reports:	Licensed

Figure 8 - Licensed Features

- **Multiple Extension Transfer:** Displays if the system is correctly licensed for Multiple Extension Transfer.
- **CONNECT Recording:** Displays if the system is correctly licensed for i-tiva Recording.
- **CONNECT Multilingual:** Displays if the system is correctly licensed for CONNECT Multilingual.
- **MESSAGE Multilingual:** Displays if the system is correctly licensed for MESSAGE Multilingual.
- **Emailed Reports:** Displays if the system is correctly licensed for Emailed Reports.

Prompt Settings

This page is used to set up the general system requirements that are used throughout the i-tiva system. The i-tiva standard accent prompt set to use is designated here, or alternatively customised prompts can be installed for all module options, overwriting existing standard prompts.

> *To access this option, open the Configuration Tool and go to 'General' in the menu bar. Click on 'Prompt Settings' on the left navigation bar.*

Volume Control for all Languages

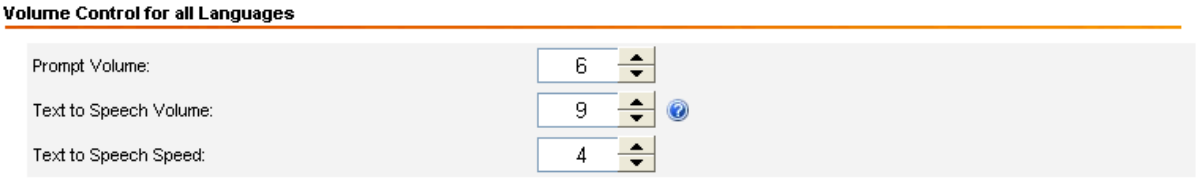


Figure 9 - Voice Accent

- **Prompt Volume:** The volume level of the prompts played to a patron. This setting can be set between 1 and 9, where 1 is quiet and 9 is loud.

- **Text to Speech (TTS) Volume:** The volume of the Text to Speech module. This setting can be set between 1 and 9 but it is recommended to keep the Text to Speech volume at 9 as this will keep it the same volume as the prompts. Setting TTS Volume lower than 9 will result in the TTS being quieter than the prompts.

- **Text to Speech Speed:** The speed at which Text to Speech "speaks". This setting can be set between 1 and 9, where 1 is slow and 9 is fast.

Language Selection

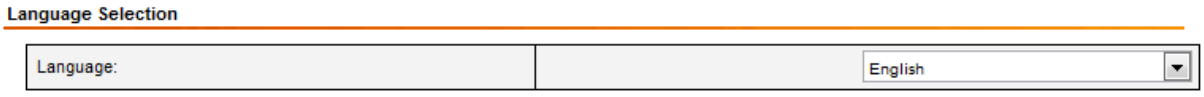


Figure 10 - Voice Accent

- **Language:** Determines the language the below *Voice Accent* configuration is being applied to. This is not an option to select the language of the system. Once this is selected, you will notice the accent and prompt directories in the *Voice Accent* section will change.

Voice Accent

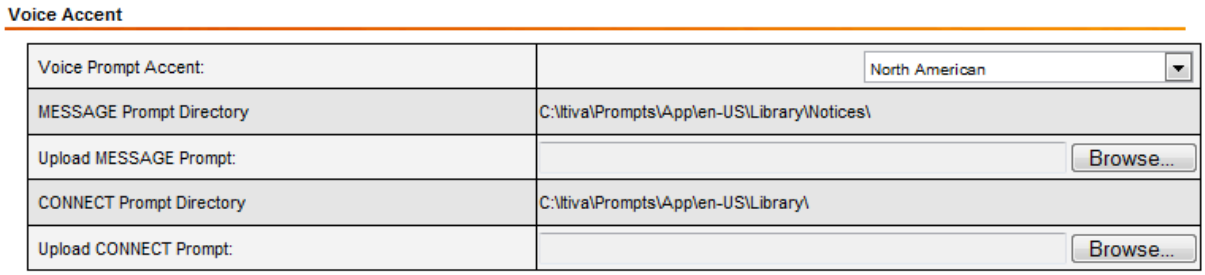


Figure 11 - Voice Accent

- **Voice Prompt Accent:** Provides the ability to select the accent to be used for the system. When modified, it changes the accent of the prompts that are presented to the patron for both CONNECT and MESSAGE functionality. For example, if Australian is selected then all prompts are presented in an Australian accent. Please note that the customised prompts for your system will only be recorded in a single accent, therefore if this setting is modified after the prompts have been recorded, you will lose your customizations until they're recorded in the selected accent.

- **MESSAGE Prompt Directory:** Displays the location of the prompt directory.

- **Upload MESSAGE Prompt:** Provides the ability to upload custom MESSAGE prompts.

- **CONNECT Prompt Directory:** Displays the location of the CONNECT prompt directory.

- **Upload CONNECT Prompt:** Provides the ability to upload custom CONNECT prompts.

How to Say Things

Determines how i-tiva will say different words or phrases throughout MESSAGE and CONNECT call flows.

Figure 12 - How to Say Things

The options available for the Libraries are as follows:

- **Library** – "i-tiva" or "Custom". Note: "i-tiva" almost always should be selected
- **On-Loan Items** – "On Loan" or "On Issue"
- **Overdue items** – "Overdue" or "Extended Loan"
- **Reserve items** – "Reserve" or "Hold"
- **Summary Introduction** – "You currently have" or "According to our records"
- **Hash (#) Key** – "Hash" or "Pound"
- **Operator** – "Operator" or "Staff" or "Library Staff" or "Help Desk"
- **Currency** – "$.00c" or "£.00p"

Port Configuration

The configuration of the Dialogic ports is an essential part of the i-tiva system. This page provides the ability to configure ports and their associated functionality. Transfer ports are only used with systems that have digital lines.

> *To access this option, open the Configuration Tool and go to 'General' in the menu bar. Click on 'Port Configuration' on the left navigation bar.*

Application Ports

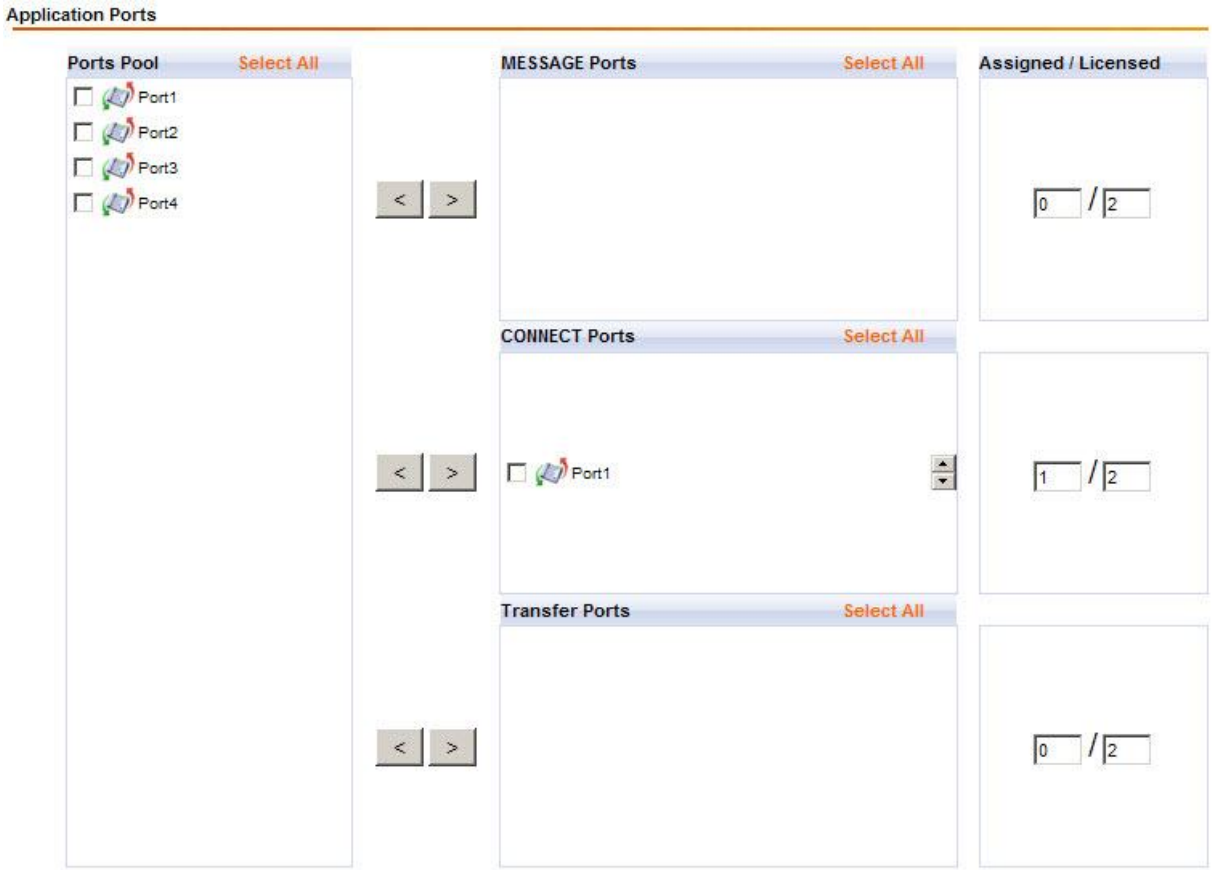


Figure 13 - Application Ports

- **Ports Pool:** Displays all ports available for configuration.
- **MESSAGE Ports:** Displays ports used for outbound dialling.
- **CONNECT Ports:** Displays ports used for inbound dialling.
- **Transfer Ports:** Used only on systems with digital lines. Displays ports that will provide transfer functionality.
- **Select All:** Will select all the ports under the current pool.

Note: For i-tiva to collect the changes to the system the "_i-tiva – Telephony Server" service will need to be restarted. Alternatively the server can be rebooted. Please see System Control on how to restart a service.

Assigned/Licensed

This section displays the number of assigned ports to the number of ports that the system has licensed for that particular module.

Port Settings

This section is used by system experts to define hardware parameters for the dialling subsystem. Please discuss with Support before making any changes to this section. Not all configuration items shown below are described within this document.

> *To access this option, open the Configuration Tool and go to 'General' in the menu bar. Click on 'Port Settings' on the left navigation bar.*

Port Settings

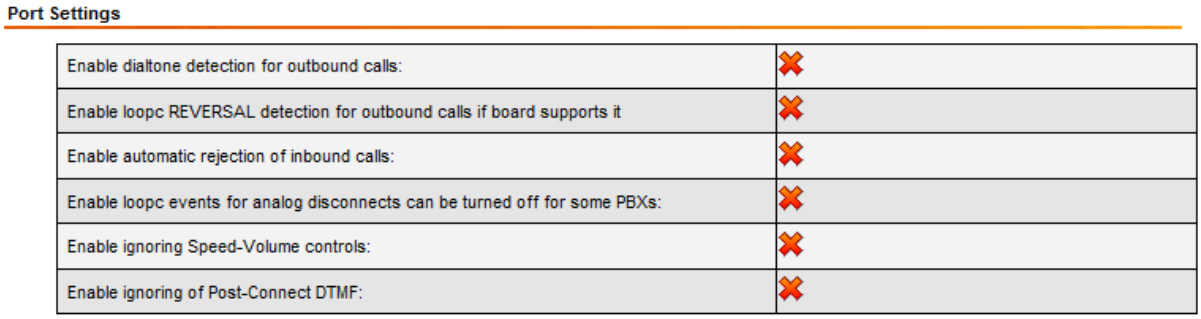


Figure 14- Port Settings

- **Enable dialtone detection for outbound calls:** This setting will enable i-tiva to check for a dial tone before dialling the phone number.

- **Enable loopc REVERSAL detection for outbound calls if board supports it:** Electric current signalling provided by the Telco companies to indicate that the remote party has answered the call. This is used to distinguish a network message provided by the Telco from the end premises answering the call. This can normally be delivered at no extra cost but the terminology may vary between telephone companies. This is currently available in New Zealand, Australia and the United Kingdom. This feature is not available in Canada or the USA. See Telephony Requirements.

- **Enable automatic rejection of inbound calls:** This setting can only be applied to Digital (ISDN) systems. This setting will disable i-tiva from answering inbound calls on outbound ports.

Port Timing

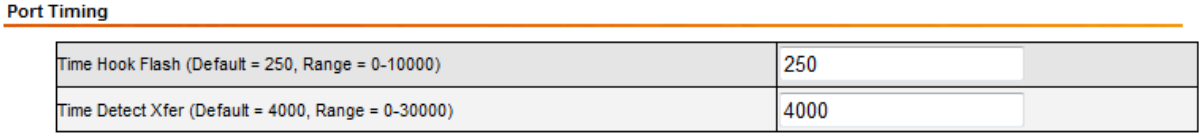


Figure 15- Port Timing

- **Time Hook Flash:** The amount of time in milliseconds that i-tiva will hook flash before conducting a blind transfer. If you're having trouble with blind transfers, increasing the amount of time for the hook flash may help resolve the problem.

- **Time Detect Xfer:** This is the amount of time in milliseconds that i-tiva will use to detect that the transfer was successful.

Board.VOX

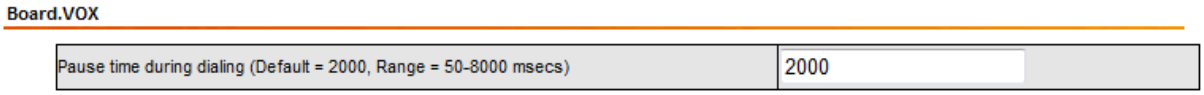


Figure 16- Board.VOX

- **Pause time during dialling:** This setting sets the delay caused by a comma in the dialling string.

Resource.VOX

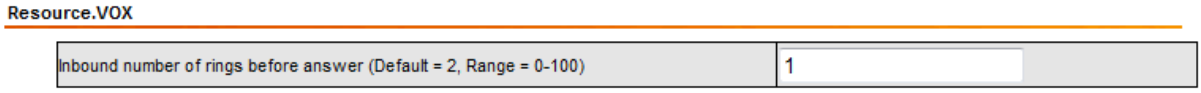


Figure 17- Port Settings

- **Inbound Number of rings before answer:** The number of rings that a user will experience before i-tiva picks up the phone line.
  Note: this is not necessarily the number of times the phone-line will play the ring-tone, but is an internal ring-time. However, the length of these two ring-cycles is usually very similar.

LMS Setup

This page determines how the i-tiva system will interface with the LMS. Details are configured here in order for i-tiva to communicate with the LMS server.

> *To access this option, open the Configuration Tool and go to CONNECT in the menu bar. Click on 'LMS Setup' on the left navigation bar.*

Operating Mode

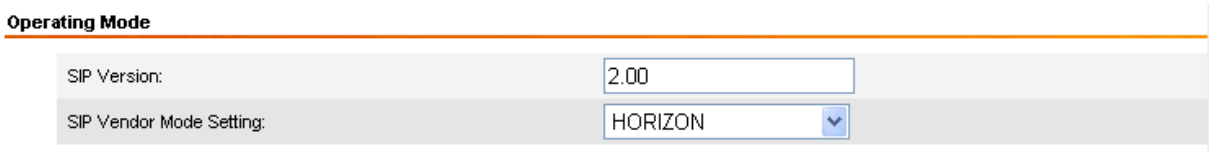


Figure 18 - Operating Mode

- **SIP Version:** Determines which version of SIP the i-tiva system is using. If this value is left empty then it will default to 2.00. Typically this does not change.

- **SIP Vendor Mode Setting:** If a customized mode is being used then it is entered here. This value will be automatically entered when a LMS is selected under general settings – typically will not need to be changed from the default (vendor specific).

Telnet Prompt Keys

In certain circumstances i-tiva will first need to establish a telnet session with the LMS prior to communicating using the SIP protocol. The following configuration items determine when i-tiva will enter the username, password, and when a connection has been established successfully.

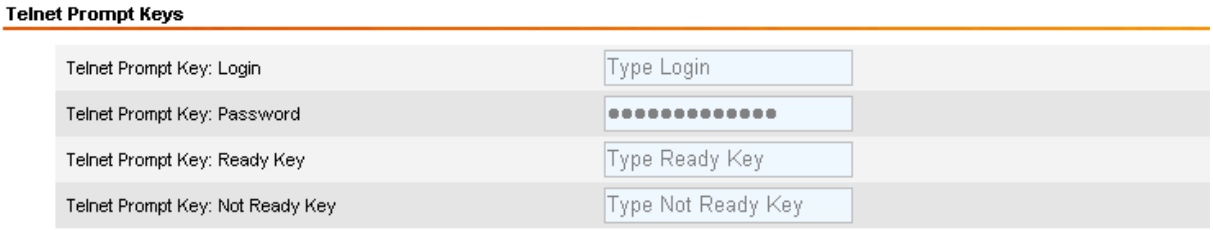


Figure 19 - Telnet Prompt Keys

- **Telnet Prompt Key: Login:** Enter the successfully found (via Telnet) Login key prompt text, example: "Enter Username:".

- **Telnet Prompt Key: Password:** Enter the successfully found (via Telnet) Password key prompt text, example: "Enter Password:".

- **Telnet Prompt Key: Ready Key:** Key indicating the Telnet session has logged in successfully, example: "Logged in Successfully".

- **Telnet Prompt Key: Not Ready Key:** Key indicating the Telnet session did not happen successfully, example: "Login Failed".

Connection

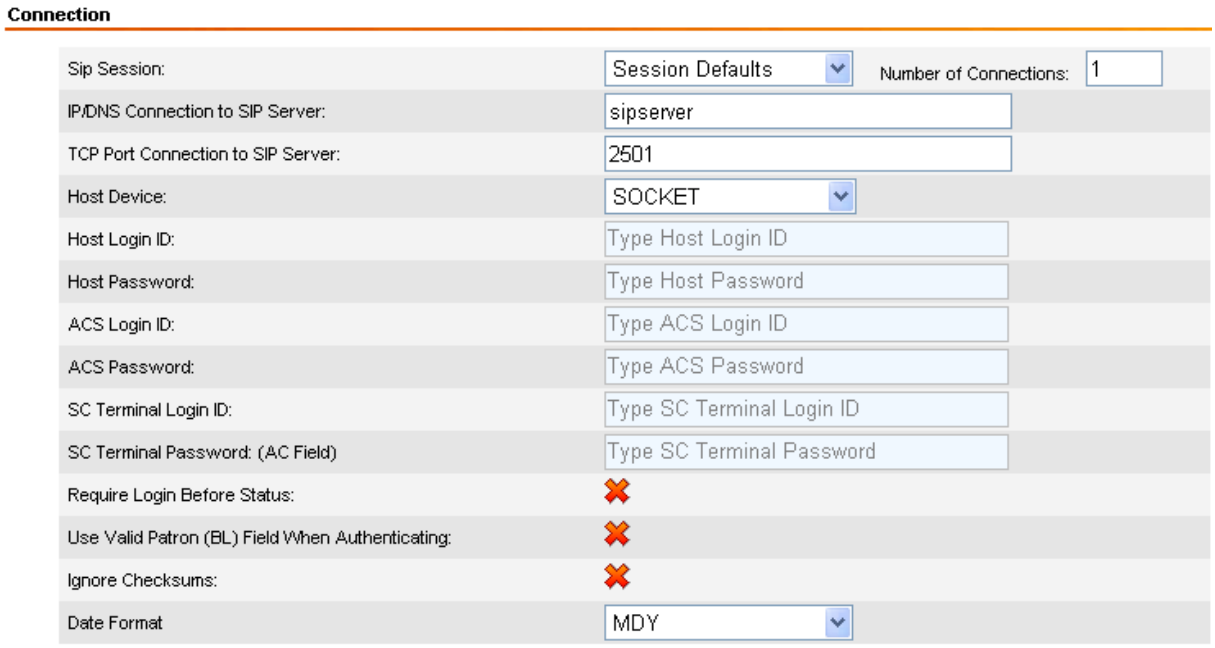


Figure 20 - Connection Details

- **Number of Connections:** This is the number of SIP connections to the LMS server. The ideal number would be the number of CONNECT ports. Add the number of MESSAGE ports if login on MESSAGE is enabled and add another connection if MESSAGE Realtime is enabled.

- **Sip Session:** Certain LMS systems may require different configuration for each SIP2 session. Once you choose the *Number of Connections* you can use the drop down box to configure that individual SIP2 session. The *Session Defaults* option applies to all sessions and for most libraries and vendors is what will be used for configuration. When in doubt, only configure the *Session Defaults*.

- **IP/DNS Connection to SIP Server:** Network address of the LMS SIP server.

- **TCP Port Connection to SIP Server:** Port number that the LMS is set up to listen on.

- **Host Device:** Either SOCKET or TELNET depending on the LMS. Consult your LMS vendor if unsure.

- **Host Login ID:** Telnet Username to login to the LMS.

- **Host Password:** Telnet Associated host username password.

- **ACS Login ID:** If login to an ACS terminal is required this is the username. This is the CN Field in a SIP2 93 (Login) Request.

- **ACS Password:** Associated ACS username password. This is the CO Field in the SIP2 93 (Login) Request.

- **SC Terminal Login ID:** Typically never changed (usually blank). This is the CP Field in the SIP2 93 (Login) Request.

- **SC Terminal Password:** Typically never changed (usually blank). This is the AC Field (terminal password) field used in all SIP2 transactions.

- **Require Login Before Status:** The system will issue an ACS login command (SIP 93) before asking for a status update. Certain LMS systems require this. Consult the LMS vendor if unsure.

- **Use Valid Patron (BL) Field When Authenticating:** This setting checks that the "valid patron" (BL) field is true to authenticate the login. The old behaviour was to check the "personal name" (AE) field and if this was populated then it was assumed the login was successful. However, some LMSs fill this field with "Unknown Patron" or similar if the login was unsuccessful, and rely on the BL flag being checked. Therefore, for these LMSs, this option is set to True.

- **Ignore Checksums:** The system doesn't check that the Checksums match when receiving a response from the LMS. This is because some LMSs don't support checksums.

- **Date Format:** The format of the date received from the SIP Server.

Realtime Messaging Settings

Communicating with the LMS, i-tiva will update the user records throughout the campaign, providing up-to-the-minute results. This page will determine how the i-tiva system is to communicate with the LMS interface to provide these updates.

MESSAGE Realtime does require a SIP2 connection to the LMS. Furthermore only certain LMS support this feature. Please contact Support or your LMS provider for further details.

Figure 21 - Connection Details

- **Realtime Enabled:** Enables or Disables Realtime Messaging on i-tiva.

- **Append TransactionID on Billing Notices (CG Field):** Adds the transaction ID, if specified in the message file, to the 43 message.

Report Emailing

i-tiva Report Emailing enables daily reports to be emailed to key personnel so they are kept informed of the delivery success of i-tiva MESSAGE. This is an optional module that needs to be purchased separately by the library.

This window is used to set up the automated delivery of i-tiva MESSAGE Reports via email. By un-checking the *Report Emailing Enabled* checkbox this functionality can be disabled, but maintain all of the configured settings – you must check this box for the remainder of the configuration settings to appear. A valid SMTP server accessible via the i-tiva system must be available in order for report emailing to function.

> *To access this option, open the Configuration Tool and go to 'General' in the menu bar. Click on 'Report Emailing' on the left navigation bar.*

Report Emailing

This setting provides the ability to turn on and off the report emailing functionality while maintaining the list of email recipients and their details**.**

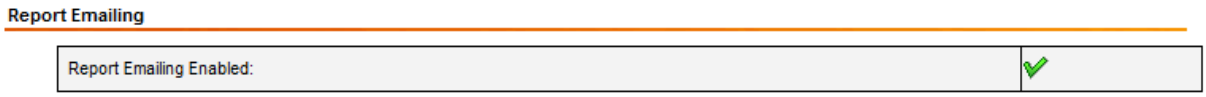


Figure 22 - Report Emailing

Email Recipient Details

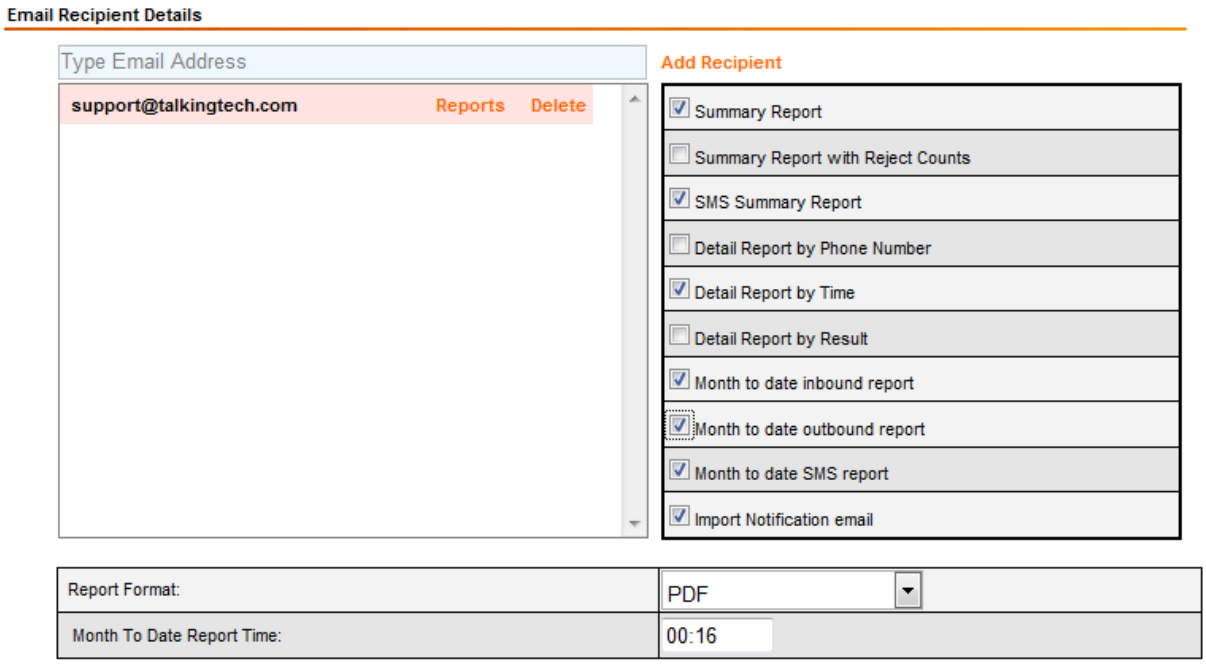


Figure 23: Email Recipient Details

- **Type Email Address:** Enter in the email address of the person and click *Add Recipient* to include them as a recipient of the emailed report. This is a required field and needs a valid email address. For the email address to be added, the *SMTP Server*, *SMTP Port* and *From Address* fields must all be filled in at the bottom of the page.

- **Reports:** Clicking this allows you to select which reports to send to a recipient.

- **Delete:** This deletes the recipient from the list of email addresses.

- **Report Format**: Drop down menu allows you to select the file format for the generated report.

- **Month to Date Report Time:** Enter the time that the reports will be delivered, in 24-hour (HH:MM) format. Please note that the Month to Date reports will only provide the up to the previous day's activity, so it is recommended that you send this after midnight.

Report Types

Summary Report

This report is a summary of the overall success of a MESSAGE voice campaign. Please note that a campaign may also include SMS messages, but no SMS message information is contained within this report. The information displayed in this report is:

- Number of unique patrons in the campaign.
- Number of attempts
- Number of deliveries
- Average message percentage detailed by message result (i.e. no answer, not ringing, answered, voice mailbox) for each message type (i.e. overdue, reservation)

Note: For information about the call results, please see Appendix D - MESSAGE call results

Summary Report with Reject Counts

Shows the same information as summary report but also includes:

- Number of rejected messages and the reason for reject (i.e. no phone number)

SMS Summary Report

This report is a summary of the overall success of the SMS message campaign. This report is a summary of the overall success of a MESSAGE voice campaign. The information displayed is:

- Number of unique patrons in the campaign.
- Number of messages imported
- Number of deliveries

Detailed Report by Phone Number

This report is an in-depth report on the result of each specific call made during the campaign. It is ordered by phone number and shows:

- Phone Number
- Patron Name
- Patron Account
- Attempt Time
- Call Result
- Delivery Percentage
- Library (If Consortia)

Detailed Report by Time

This report is identical to *Detailed Report by Phone Number* but is ordered by attempted time. The first phone calls of the day are listed at the beginning of the report and the last phone calls near the end.

Detailed Report by Result

This report is identical to *Detailed Report by Phone Number* but is grouped by the result of the call. All similar grouped results are together within the report.

Month to Date Inbound (CONNECT) Report
This report provides a month-to-date snapshot of the follow information, including the daily numbers and total numbers for the month.

- Number of i-tiva CONNECT Calls
- Logins
- List Loans
- List Ready Reserves
- List Unavailable Reserves
- Renew Item Requests
- Renew All Requests

Month to Date Outbound (MESSAGE) Report

Displays the following broken down by message type for each day, with grand totals for the month to date:

- Number of messages imported
- Number of rejected messages
- Number of calls made
- Number of successful deliveries

Month to Date SMS Report

Displays the number of SMS messages queued per day, with the grand totals for the month to date.

Import Notification Email

An email notification is forwarded to inform the library that a notice file has been imported.

SMTP Connection Details

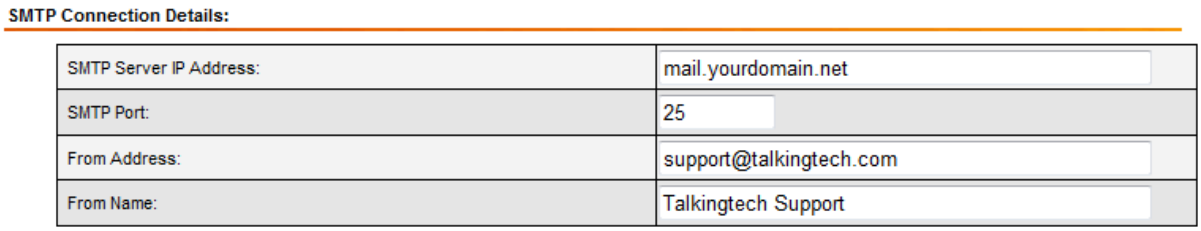


Figure 24 - SMTP Connection Details

- **SMTP Server IP Address** *(required)*: The network address of the SMTP server.
- **SMTP Port** *(required)*: The TCP port number for the SMTP server provided above. Most email servers use Port 25.
- **From Address** *(required)*: The address that will show in the 'From' field of the email when received.
- **From Name:** The name that will show in the 'From' field of the email when received.

Note: The mail settings need to be set in accordance with the anti-relaying rules of the SMTP server. An incorrect setting may result in email not being delivered. The local network administrator may need to be consulted for the local settings.

System Control

The System Control enables the stopping and starting of specific services within the i-tiva system. Use with caution; any service stopped will not operate until it is started again. Depending on the configuration of i-tiva, certain services may not have to be enabled or running to provide full functionality.

> *To access this option, open the Configuration Tool and go to 'General' in the menu bar. Click on 'System Control' on the left navigation bar.*

Services

This page displays the operating state of the primary functions of i-tiva. Please note that SMS functionality falls under the MESSAGE Services.

Figure 25 –CONNECT (Inbound) and MESSAGE (Outbound) Services

 : Play - Turns on the services.  : Stop - Stops the services.  : Restart - Restarts the services.

- **CONNECT Services:** Displays the current state of the CONNECT (Inbound) service. The service can then be started (if stopped), stopped (if started), or restarted.

- **MESSAGE Services:** Displays the current state of the MESSAGE (Outbound) service. The service can then be started (if stopped), stopped (if started), or restarted.

Advanced System Controls

This window displays the current state of all system services that operate as part of i-tiva.

The service can then be started (if stopped), stopped (if started) or restarted. Certain i-tiva services have dependencies which will be displayed on the right hand side. If you stop or restart a service with a dependent service then the dependent service will also be forced stop or restart.

Certain configuration changes throughout the system do require the services to be restarted before the setting take effect. Those changes will be noted throughout this document.

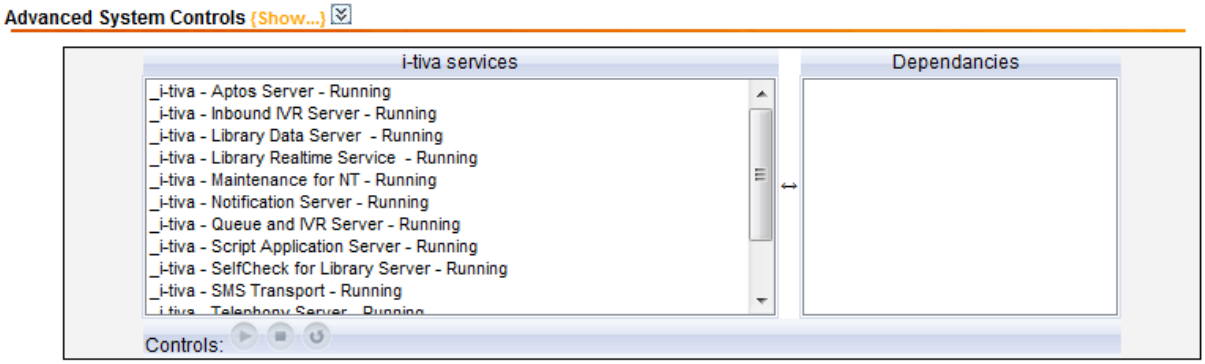


Figure 26 - Advanced System Controls

System Maintenance

Use this section to specify purging requirements to minimise disk space overhead.

> *To access this option, open the Configuration Tool and go to 'General' in the menu bar. Click on 'System Maintenance' on the left navigation bar.*

System Maintenance

Figure 27- System Maintenance

- **Enable purging of old Express Reports stored on file system:** Enable the purging of the temporary express reports data that is created when report emailing is configured. This setting is highly recommended.

- **Enable purging of Database:** Enable the purging of the system databases. The typical i-tiva system uses Microsoft SQL Server Express which has database size limitations. If these size limits are reached without the database being purged, it could prevent the system from operating correctly.

Express Purging Schedule

This displays the schedule information for the purging of the old Express Reports stored on the file system. This configuration is only available if the *Enable purging of old Express Reports stored on the file system* setting is enabled. It is highly recommended that this is configured to run at least once a week and that the max report age is seven days or less.

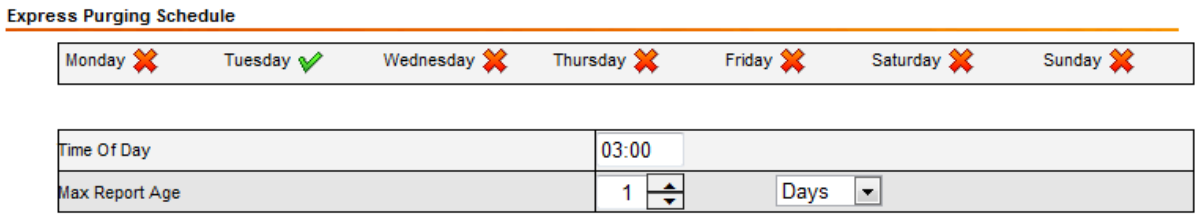


Figure 28- Express Reports Schedule

- **Days of the Week:** This enables the purging to occur on the days of week that are checked.

- **Time of Day:** The time of the day the purge will occur. It is recommended that this be configured for a period of the day with low system activity, typically 23:00 to 06:00.

- **Max Report Age:** The amount of time that reports can be left on the system before they will be purged. Recommended that you select a value between 1 and 7 days.

Database Purging Schedule

This displays the schedule information for purging of the database. This configuration is only visible if the *Enable purging of Database* setting is enabled. It is highly recommended that this is configured to run at least once a week and that the *Free Space Threshold Percentage (FST%)* is set to 10% or greater (20% recommended)

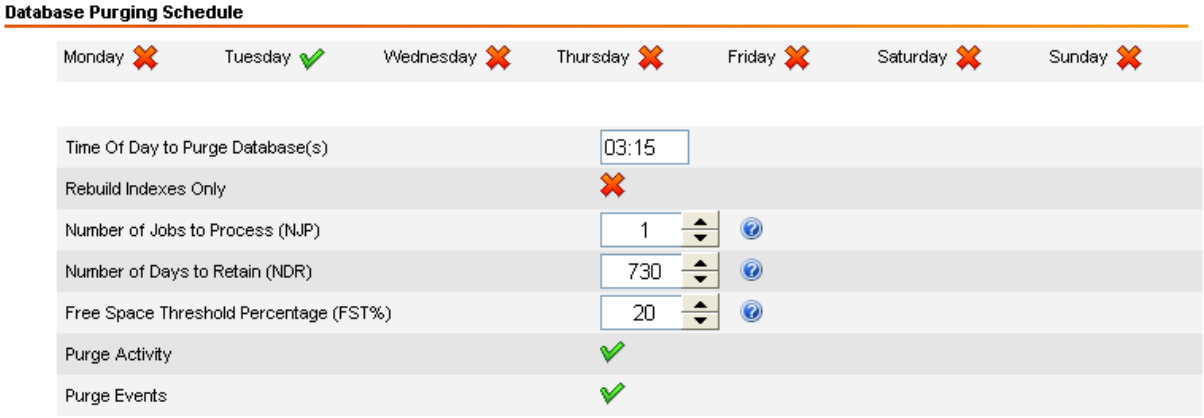


Figure 29- Data Purging Schedule

- **Days of the Week:** This enables the purging to occur on the days of week that are checked.
- **Time of Day to Purge Database(s):** The time of the day the purge will occur. It is recommended that this be configured for a period of the day with low system activity, typically 23:00 to 06:00. If Express Purging schedule is enabled, then it is recommended you select a different time of day.
- **Rebuild Indexes Only:** If this setting is enabled, the Database Purging Schedule won't purge any data; instead, each week it will just rebuild the indexes on the database to improve database performance. Enabling this setting will disable the other settings below it.
- **Number of Jobs to Process (NJP):** The amount of jobs to be purged at a time. Please be cautious when supplying a large value as it will slow down the system. The recommended configuration is one.
- **Number of Days to Retain (NDR):** The numbers of days before the records begin to be purged.
- **Free Space Threshold Percentage (FST%):** This is the preferred amount of free space available on each database. The recommended setting to keep the system on its optimized state is 20%. FST takes priority over NDR. For example, if FST is 20% and NDR is 30, FST takes over and the system may result in having a calculated NDR of 25.
- **Purge Activity:** The purging process also purges the Activity database. When it doubt, enable this setting.
- **Purge Events:** The purging process also purges the Events database. When it doubt, enable this setting.

Database Status

This page provides reporting information that will be used by Support staff to diagnose errors and unexpected situations.

> *To access this option, open the Configuration Tool and go to 'General' in the menu bar. Click on 'Database Status' on the left navigation bar.*

Database Status

Database Name	Status	Database Size	Log Size	Total Size	Growth By Size
itivaEvents	ONLINE	39.94 MB	1.75 MB	41.69 MB	30 MB
ItivaRealtime	ONLINE	3 MB	1 MB	4 MB	1 MB
ptActivityDB	ONLINE	128 MB	128 MB	256 MB	64 MB
ptCampaignDB	ONLINE	256 MB	128 MB	384 MB	64 MB
ptLibDataDB	ONLINE	4 MB	1 MB	5 MB	1 MB
ptQueueDB	ONLINE	128 MB	128 MB	256 MB	64 MB
SecurityFrameworkV2	ONLINE	3 MB	1 MB	4 MB	1 MB

Figure 30 – Database Status

i-tiva CONNECT

Overview

Using i-tiva CONNECT, library users are able to call in and access their library account over the phone, with no staff involvement, 24 hours a day. Any caller can get general library information, but callers registered as users can also access their account information. After entering their user barcode (identification number) via the touch-tone keypad on their phone, and following simple prompts, i-tiva CONNECT will enable them to get specific library information, review account status and renew items.

Please note: The exact functionality offered to the user will depend on the LMS Server and i-tiva configuration. Please contact Support for more information.

This section includes how to operate the settings for the Operator Transfer function. The library will also learn about the optional Multiple Extension Transfer module.

The following diagram best describes the overview model for i-tiva CONNECT.

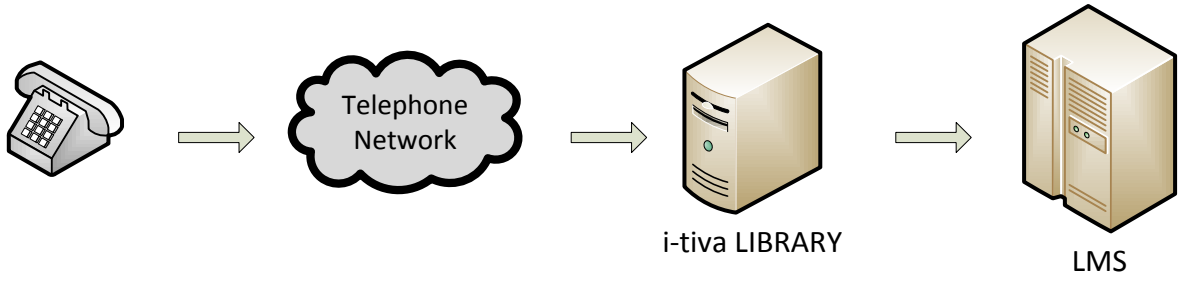


Figure 31 - CONNECT Diagram

i-tiva CONNECT involves a computer system answering calls from external parties and performing actions based on caller input. This input is typically in interaction with the LMS server and is via SIP2.

Efficient usage of this system requires adequate phone lines that meet all requirements and a successful connection and interface to the LMS.

CONNECT Options

In order to turn on/off CONNECT functionality simply check/uncheck the appropriate list options. The description for each set of options and how they affect the system is described below.

If no options are selected then the i-tiva system will not provide any options for the caller once they login with their user barcode and/or pin.

> *To access this option, open the Configuration Tool and go to CONNECT in the menu bar. Click on 'CONNECT Options' on the left navigation bar.*

General

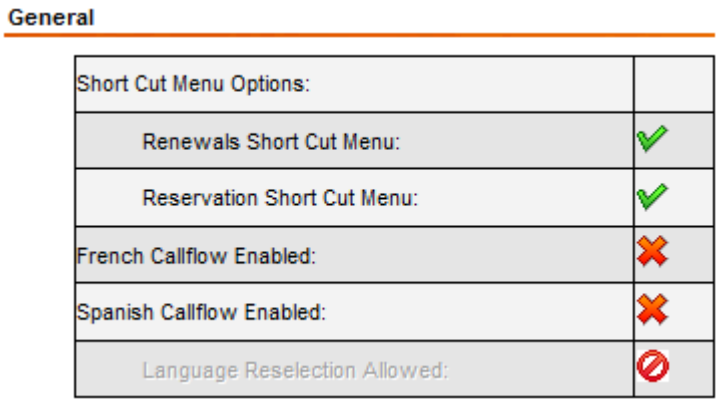


Figure 32 - General

- **Shortcut Menu Options:** The i-tiva system provides the opportunity for a user to login and be directed immediately to the Reservation or Renewals Menu (if selected), thus bypassing the Account Summary and Account Menu. This option is only available from the initial greeting menu. If unchecked a user can still access the Renewals and Reservation Menu via the Account Menu once logged in. If a shortcut is used, the user may divert to the associated Account Menu by pressing star (*) multiple times.

- **Renewals Short Cut Menu:** (see Shortcut Menu Options Above). Provides an option to the user that bypasses the Account Summary and Account Menu to go straight to the Renewals Menu.

- **Reservation Short Cut Menu:** (see Shortcut Menu Options Above). Provides an option to the user that bypasses the Account Summary and Account Menu to go straight to the Reservation Menu.

- **French Call Flow Enabled:** Selecting this option enables users to select either English or French upon calling into the system.

- **Spanish Call Flow Enabled:** Selecting this option enables users to select either English or Spanish upon calling into the system.

- **Language Reselection Allowed:** This option offers the ability in the Main Menu, Option 9, for the user to reselect their language choice.

Account Options

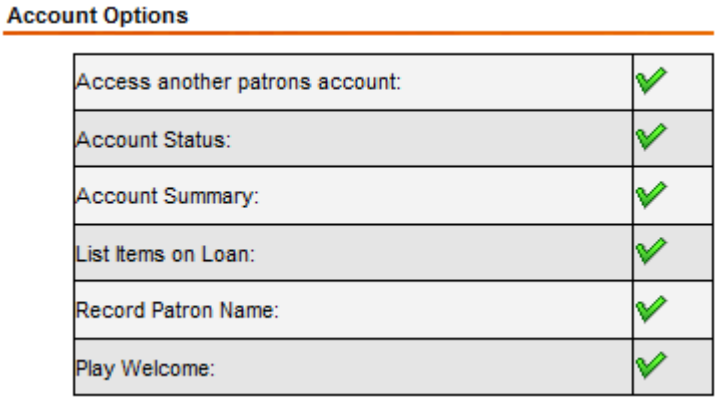


Figure 33 - Account Options

- **Access another patron's account:** Provides the ability for a caller to login to another user's account, once they themselves have logged in, whilst still within the current call. If not selected then users must hang up and call the IVR again to access another user's account.

- **Account Status:** Provides the account status for the user's record. Typically this includes: count of items on loan, count of overdue items, count of reserved items and reserved items ready to pick up, and the amount owed by the user (although this may vary between LMS).

- **Account Summary:** Provides the account summary for the user's record when the user first logs into the system successfully. This includes count of items on loan, count of overdue items, count of reserved items, and count of reserved items ready for pickup.

- **List Items on Loan:** Enables users to hear a list of their current items on loan. The details listed are the item titles and due dates. If any item is overdue, this is also mentioned. If reservations are enabled, then the reserved items are listed along with the items on loan.

- **Record Patron Name:** Enables the call flow functionality for users to record, delete, or listen to their own names as will be spoken by the system. The recorded name is then used instead of the Text-to-Speech generated name.

- **Play Welcome:** Enables the patron name to be spoken once they've successfully logged into the system.

Renewals

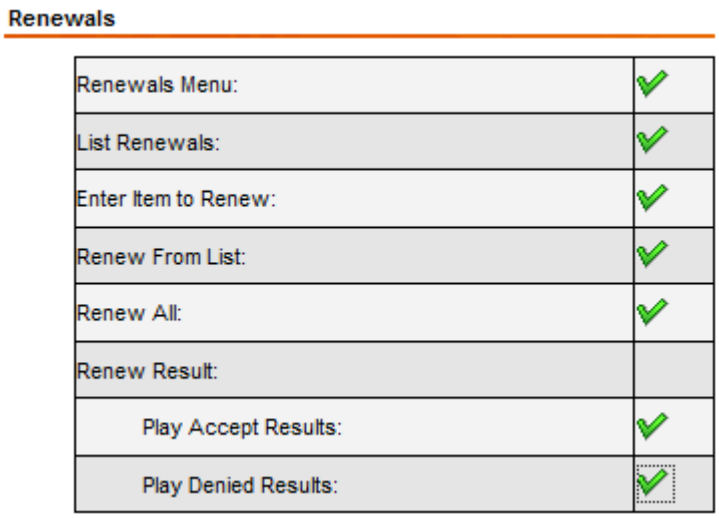


Figure 34 - Renewals

- **Renewals Menu:** Determines whether the Renewals Menu is available. This menu provides a list of options that a caller can select in order to undertake renewal actions on their loan items.

- **List Renewals:** Available from the Renewals Menu. Provides the ability to hear a list of items that can be renewed. Effectively plays the current list of loan items.

- **Enter Item to Renew:** Available from the Renewals Menu. Provides the ability for a user to enter an item barcode using the number pad on the phone. Please note that item barcodes that contain both numbers and alphabetic characters will require a custom Item Barcode Configuration (See CONNECT Access).

- **Renew from List:** Provides the ability to renew an individual item by selecting from the list of items currently on loan.

- **Renew All:** Action available from the Renewals Menu. Provides the ability to attempt to renew all the items a user currently has on loan.

- **Renew Result:** Determines if the result for each renewal attempt (from the Renew All command) is played back to the user.

- **Play Accept Results:** When checked, plays information for each item that was successfully renewed.

- **Play Denied Results:** When checked, plays information for each item that was unsuccessfully renewed.

Reservation

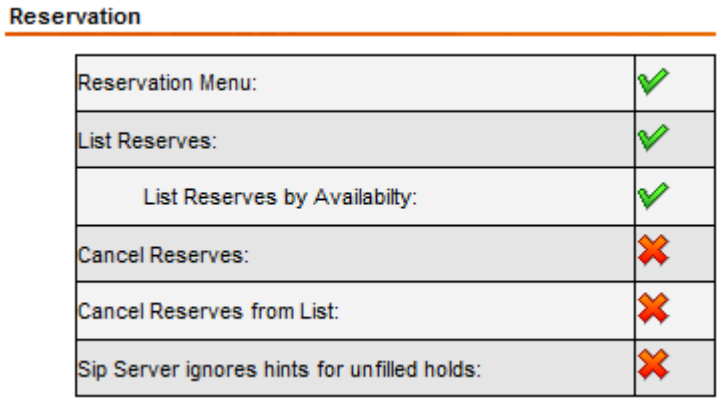


Figure 35 - Reservation

- **Reservation Menu:** Determines whether the Reservation Menu is provided. This menu provides access to actions associated with reserved/hold items.

- **List Reserves:** Available from the Reservation Menu. Lists all the reservations currently unavailable and available to collect.

- **List Reserves by Availability:** Provides the option to break up the 'List Reserves' into available and unavailable to collect.

- **Cancel Reserves:** Available from the Reservations menu. Provides the ability to cancel a reservation by entering its barcode. (Unsupported by most LMS systems – probably due to the need to enter the barcode of a book you don't actually have).

- **Cancel Reserves from List:** Provides the option to hear, and cancel individually, reserved items listed.

- **Sip Server ignores hints for unfilled holds:** When enabled i-tiva will ignore certain information as provided by the LMS to provide accurate account information to the user. In certain cases the LMS will provide seemingly contradictory information regarding an item, since the item may be in two different states, depending on the perspective of the item. For example, an item may be 'on loan' to one patron but considered an 'unavailable reserve' to another. When in doubt, enable this functionality.

CONNECT Access

This page provides the opportunity to customize user and item barcode formats and functionality. Such customization may occur when users have a fixed character on the front or behind of all their barcodes. Determining the need to prompt for PIN verification is also configurable from this page.

> *To access this option, open the Configuration Tool and go to CONNECT in the menu bar. Click on 'CONNECT Access' on the left navigation bar.*

Patron Barcode Menu Configuration

This feature is required for libraries that have user barcodes with different alphanumeric characters either prefixed or suffixed to the barcode. For example a library has barcodes that start with 'P' and 'C'.

In this situation there are two ways that i-tiva can be configured:

1. **Cycle Mode:** When a user enters their barcode then i-tiva will apply the rules of the *Patron Barcode Configuration* (see below) to attempt access to the LMS. If the attempt fails then i-tiva will cycle to the next *Patron Barcode Configuration* in the list and attempt access again. If i-tiva cycles through all the formats and all attempts fail then i-tiva will prompt the user to re-enter their barcode. For this reason it is important that you place the most common barcode style at the top of the *Patron Barcode Configuration* list. If *Enable Patron Barcode Menu* is disabled, this is the configuration item that will be applied.

2. **Menu Mode:** This item extends i-tiva's Patron Barcode handling functionality by allowing the user to choose what his barcode format looks like. Once they have selected if they are either a P or a C, the patron can enter their barcode and have the appropriate formatting applied when i-tiva queries the LMS server. If *Enable Patron Barcode Menu* is enabled, this is the configuration item that will be applied.

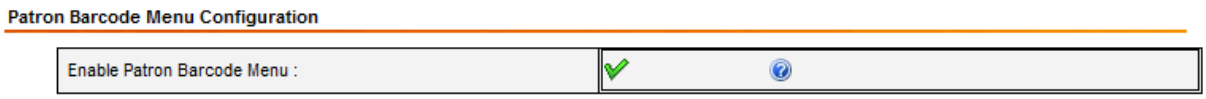


Figure 36 - Patron Barcode Menu Configuration

If *Patron Barcode Menu Mode* is enabled (Menu Mode) then the following configuration is required.

- Define possible barcode formats in the Patron Barcode Configuration section of the Connect Access Page.
- Setup the Patron Barcode Menu Greeting Prompt PMenuGreeting.vox either by uploading the prompt through General| Prompt Settings | Upload CONNECT Prompt| Menu or by recording your own using the i-tiva Recording tool.
- Setup a format prompt for each barcode format defined. The prompt should be named as P[FormatName]Description.vox. Just like the menu greeting it can be uploaded through the Prompt Settings menu or by recording via i-tiva Recording client

Patron Barcode Configuration

Multiple custom user barcodes can be created for a library. How these barcodes are handled depends on the above *Enable Patron Barcode Menu Configuration*.

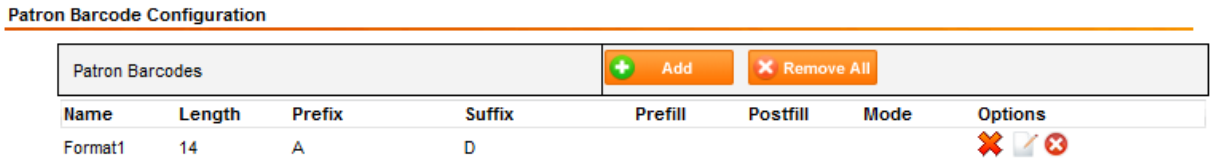


Figure 37 - Patron Barcode Configuration

- **Add:** This button will add a new user barcode format rule to the list.
- **Remove All:** Remove all user barcode formats.
- **Options**
    - **Red X/Green tick:** this button enables or disables the barcode formatting rule. It is important that after you add a rule that you enable it with the button.
    - **Pencil and Paper Icon:** This button will display the barcode formatting rule.
    - **Red and White Cross Icon:** This button will delete the barcode formatting rule.

Adding a new User Barcode formatting Rule

You can add a new barcode formatting rule by selecting *Add* under *Patron Barcode Configuration*. Please note that all barcode formatting rules are disabled by default.

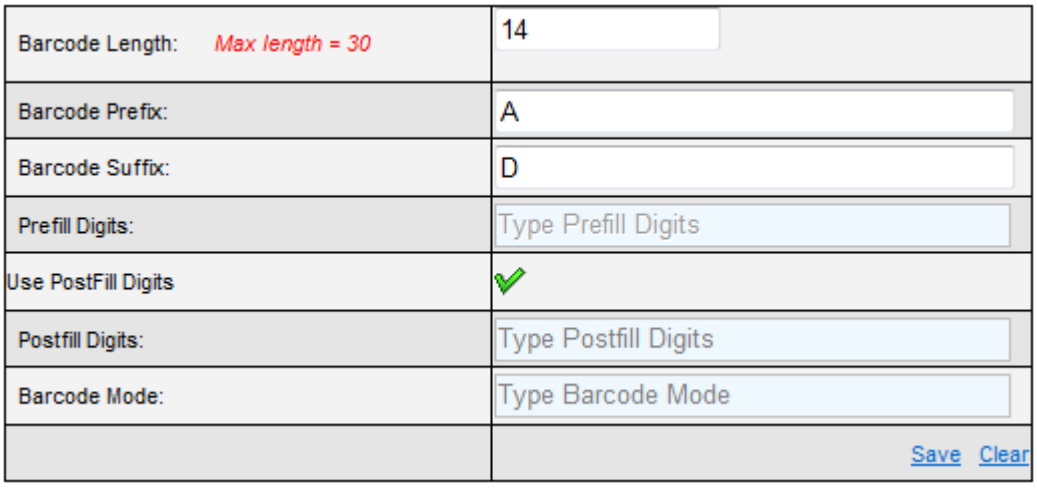


Figure 38 - User Barcode Configuration

- **Name:** Automatically populated with unique name (always 'FormatX').

- **Barcode Length:** Typical length of the user's barcode. If a barcode is variable i-tiva will accept barcodes up to this amount. Max is 30 (if in doubt, set to the longest barcode expected). This length includes the prefix and suffix.

- **Barcode Prefix:** Any constant characters that need to be prefixed to the barcode. Must be constant across all barcodes. For example if the value of this field is UX, when a user enters 2005 the barcode sent to the LMS will be UX2005.

- **Barcode Suffix:** Any constant characters that need to be suffixed to the barcode. Must be constant across all barcodes. The same principle as the Barcode Prefix applies here but for the suffix part of the barcode.

- **Prefill Digits:** Any dynamic characters that need to be prefixed to the barcode. If fewer digits than the 'Barcode Length' are entered, the digits from this field will be prefixed to the barcode before being passed to the LMS for authentication, until the max barcode length set is reached. For example if the prefill digits are set to 'XX' and the system requires a 5 digit barcode, when a user enters the 4 digits 1234 then i-tiva would pass 'X1234' to the LMS. If the user only sent the three digits 123 then i-tiva would pass 'XX123'. If the user only entered the 2 digits '12' then i-tiva would pass 'XX12' since only two X values are in the field.

- **Postfill Digits:** Any dynamic characters that need to be appended to the barcode. If fewer digits than the 'Barcode Length' are entered, then digits from the field will be post-fixed to the barcode before being passed to the LMS for authentication, until the number reaches the max barcode length set. For example if the postfill digits are set to 'XX' and the system requires a 5 digit barcode, when a user enters the 4 digits 1234 then i-tiva would pass '1234X' to the LMS. If the user only entered the three digits 123 then i-tiva would pass '123XX'. If the user only entered the 2 digits '12' then i-tiva would pass '12XX' since only two X fields are in the field.

- **Barcode Mode:** This option is currently not being applied to user barcodes.

- **Save:** This button saves the barcode formatting rule to the list.

- **Clear:** This button clears the contents of the window.

Pin Configuration

The library user PIN configuration for i-tiva.

Figure 39 - Pin Configuration

- **Pin Access Required:** Enables or disables the need for PIN verification on user barcode entry.
- **Pin Length:** Typical length of a PIN. If a PIN is variable then the IVR will accept PINs up to this amount. Max is 16 (if in doubt set to the largest PIN expected).

Item Barcode Configuration

Multiple custom item barcodes can be created for a library. When a barcode is entered by the user then i-tiva will apply each rule, in order, to the barcode and then check it against the current list of items that i-tiva has received from the LMS for that user. If i-tiva cannot successfully match the barcode the user will be asked to enter the item barcode again.

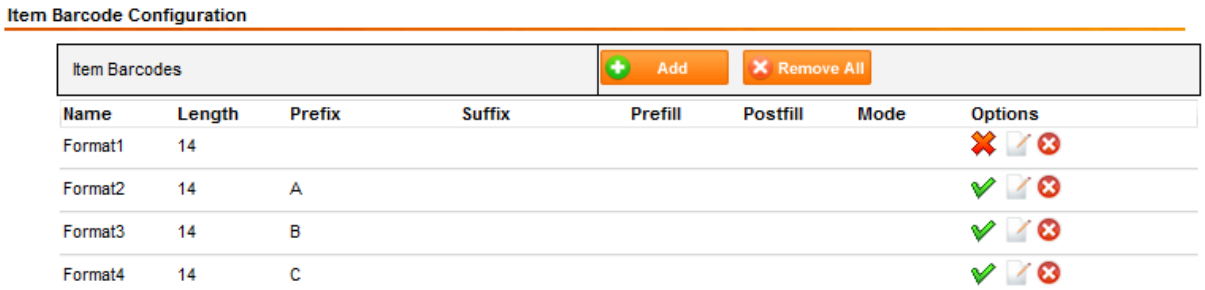


Figure 40 - Item Barcode Configuration

- **Add:** This button will add a new item barcode format rule to the list.
- **Remove All:** Remove all item barcode formats.
- **Options**
  - **Red X/Green tick:** this button enables or disables the barcode formatting rule.
  - **Pencil and Paper Icon:** This button will display the barcode formatting rule.
  - **Red and White Cross Icon:** This button will delete the barcode formatting rule.

Adding a new Item Barcode formatting Rule

You can add a new item barcode formatting rule by selecting *Add* under *Patron Barcode Configuration*. Please note that all barcode formatting rules are disabled by default.

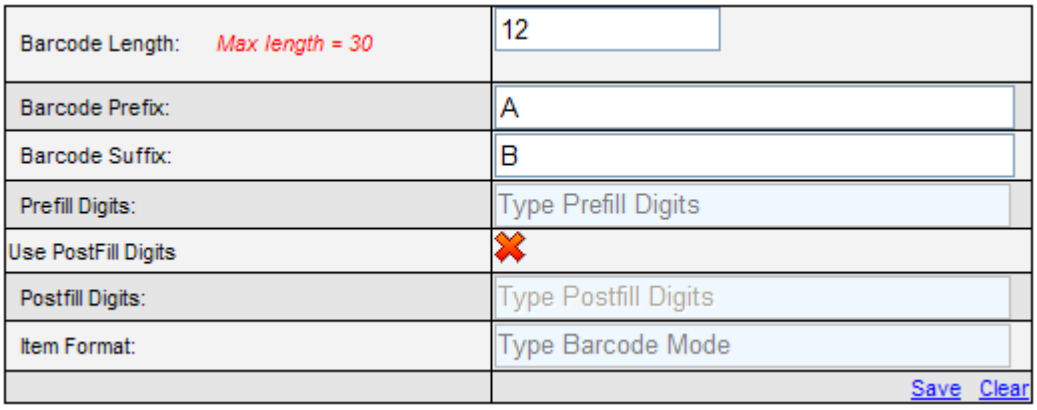


Figure 41 - Item Barcode Options

- **Name:** Automatically populated with unique name (always 'FormatX').
- **Barcode Length:** Typical length of item barcodes. If a barcode is variable the IVR will accept barcodes up to this amount. Max is 30. This length includes the prefix and suffix.
- **Barcode Prefix/Suffix:** Any constant characters that need to be prefixed/suffixed to the items barcode. The same principle as that of a user barcode prefix/suffix applies here but to the item barcode.
- **Barcode Prefill Digits:** If the user enters less than the full number of digits for an item the digits entered here will be used to 'fill' the barcode length from the front. The same principle as that of user barcode prefill digits applies here, but to the item barcode.
- **Barcode Postfill Digits:** If the user enters less than the full number of digits for an item then the digits entered here will be used to 'fill' the barcode length from the back. The same principle as that of user barcode postfill digits applies here, but to the item barcode.
- **Item Format:** Certain libraries require that the item barcode string be formatted in a specific way. You can use this field to configure the format (e.g. XXXX-XXXX will format all item barcodes to 4 digits, a dash, then the remaining 4 digits). If you are unsure, please contact i-tiva Support for more information.
- **Save:** This button saves the barcode formatting rule to the list.
- **Clear:** This button clears the contents of the window.

Operator Transfer

The i-tiva system is able to transfer calls to an external operator or staff member during a call. The library can determine the hours an operator is available.

The ability to transfer to operator is only available during the hours specified for each day, and there can only be one set of hours for this period. If no operator hours are present then the operator service will not be available. Operator functionality is only available between the specified hours. Outside the available hours the option to transfer to the operator is not offered to the caller.

> *To access this option, open the Configuration Tool and go to CONNECT in the menu bar. Click on 'Operator Transfer' on the left navigation bar.*

Considerations

If Operator transfer functionality is to be used, then an unsupervised blind transfer function must be available on all CONNECT lines. See Telephony Requirements for more information.

Operator Transfer

Figure 42 - Operator Transfer

- **Operator Transfer Enabled:** Uncheck to prevent callers accessing the Operator Transfer feature or to turn this feature off.

- **Operator Transfer Number:** Enter the number you wish the caller to be transferred to in the text box. This is the phone number the user will be transferred to if they press '0' during the Operator Transfer hours specified.

- **Operator MET Enabled:** When checked, if the user presses '0' at any time during the call, rather than being transferred directly to the transfer number as described above, they will instead be presented with a menu of transfer options. This menu is configured within the MET Menu.

Transfer Features

Auto Attendant is the ability for a user to be automatically transferred to an operator when they are unable to press a key (rotary phone) or by refraining from pressing any key. It is only available in the very first menu that greets the caller upon entry to the system. The purpose of this feature is to provide access to the operator for callers that do not have touch-tone phones.

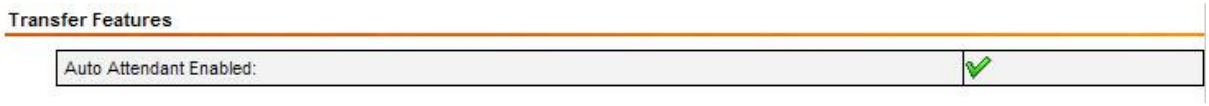


Figure 43 - Transfer Features

Transfer Times

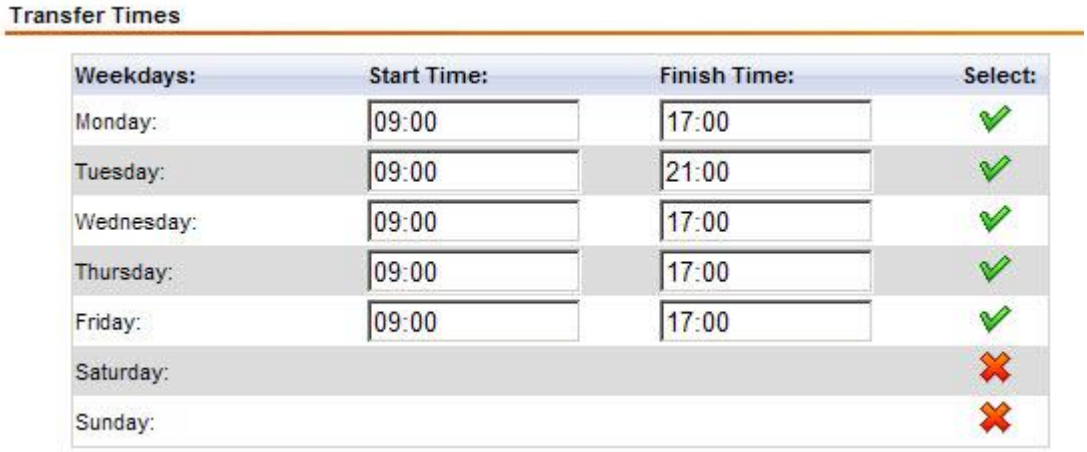


Figure 44 - Transfer Times

- **Adding Transfer Times:** The operator will only be available to users between the hours specified. Check the day for which you want to add operator availability. Enter in the Start and Stop times for the period the operator will be available.

- **Removing Transfer Times:** Un-check the day(s) you wish to remove the ability to transfer to an operator completely.

Transfer Exclude Dates

Using Exclude Dates the user can determine specific days that the Operator Transfer will not operate. On any day configured as an Operator Exclude Date the option to transfer to the operator is not offered to the caller.

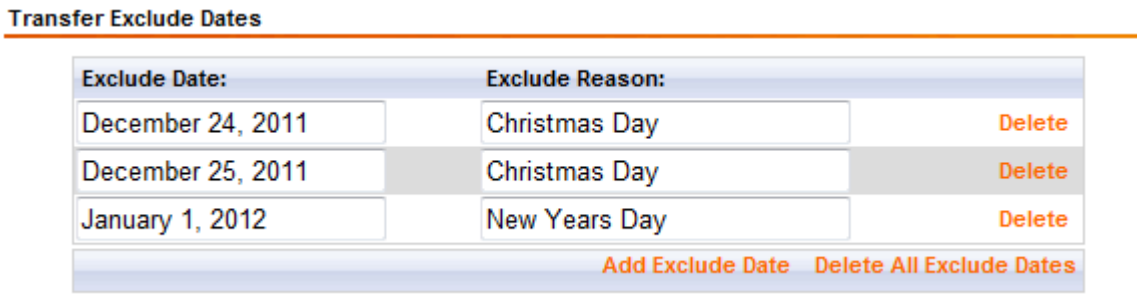


Figure 45 - Transfer Exclude Dates

- **Exclude Date:** Enter the date to exclude from Operator Transfer functionality.
- **Exclude Reason:** Type a reference for the exclude date (e.g. Christmas Day).
- **Add Exclude Date Button:** Inserts the Exclude Date.
- **Delete Button:** Select the delete button to the right of the date you wish to delete.
- **Delete All Exclude Dates Button:** Clicking on Delete All Exclude Dates removes all the Exclude Dates from the list.

Information Menus

There are three available information menus (1, 7 and 8) within the i-tiva system. Each menu is an <n> deep tree structure with the ability to have 9 nodes per branch of the tree. Each node can be one of three types, with a 10th node being the prompt played upon entry into the menu.

The Information Menus are accessible for the user from key presses '1', '7' and '8' of the i-tiva Main Menu.

> *To access this option, open the Configuration Tool and go to CONNECT in the menu bar. Click on 'Information Menu 1, 7, or 8' on the left navigation bar.*

Language Selection

Please select from the three available languages (English, Spanish or French) that the menu configuration applies to. This will default to English.

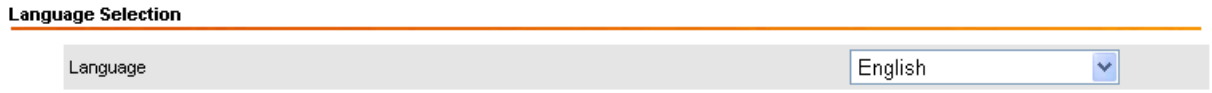


Figure 46- Consortia Mode

Information Menu 1

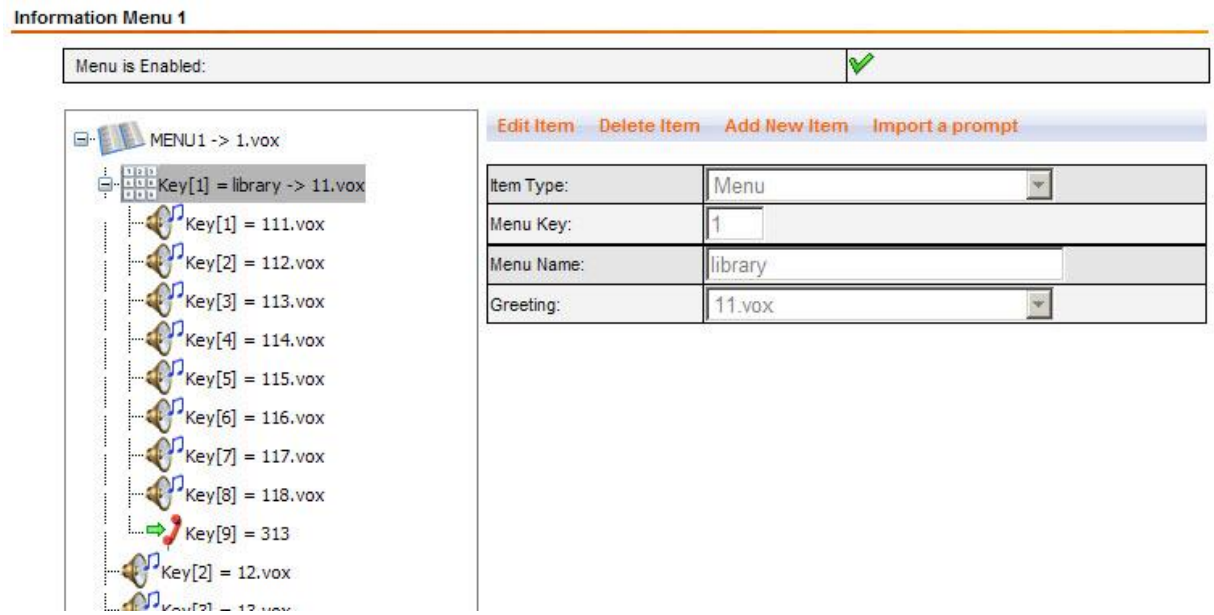


Figure 47 - Info Menu 1

Description of Item Types

Menu 

A menu is the start of a new node with 9 children. Nodes (Key Presses) 1 – 9 default to Not Used and will need to be added as an additional item. Each menu must have a greeting prompt that will be played on initial entry into that menu. The prompt must be browsed for and will be installed appropriately upon selection.

Prompt 

A prompt is the most commonly used node. It is used to convey information to the caller upon the associated key press. Once the prompt has played, the greeting prompt for the menu the prompt resides in will be played again.

Transfer 

When a caller presses a key that is assigned to a transfer node they will immediately be transferred to the designated extension. Appropriate functionality must be present on the phone lines for this option to work; please refer to Telephony Requirements for more details.

Importing Prompts

You must import the prompts you wish to use while you are constructing the particular node within the information menu. The prompts, once imported, will appear in the list of prompts for that node. It is important that you name the prompts appropriately so they are easy to remember and select. For each prompt you must import both a 64a and 64u version of the prompt – these versions must have the same name but have different file extensions. These will be provided to you by TALKINGtech.

- Select the menu node that you wish to use for a particular prompt.
- Select *Import a prompt*.
- Select *Browse* to browse on the local machine for a prompt to import.
- Once the prompt is selected then select *Upload Prompt*.
- Select *Browse* to browse on the local machine for a prompt to import. This is for the other version of the prompt.
- Once the prompt is selected then select *Upload Prompt*.
- The prompt selected will now be available to use in that Information Menu.

Adding a New Menu Item

- Click on item on the tree where you wish to add a new sub item and select *Add New Item*.
- Select the item type from the combo box below (Menu, Prompt or Transfer).
- Click *Update Item* once all the details are entered.

Changing Existing Menu Items

- Select the item on the tree list that you would like to change. In the right side of the page the appropriate details will appear for that type. Select *Edit Item*.
- Make any changes necessary and click the *Update Item* button.

Deleting Menu Items

- Select the item in the tree list that you wish to delete and the item details will appear to the right.
- Click Delete Item, then click *OK* if you are sure you wish to delete the item.

Disabling the Information Menu

If you do not want an Information Menu to be available to the public then uncheck *Menu is Enabled* at the top of the page. The option to access this particular Information Menu will be removed from the Main Menu and users will be unable to access it.

MET Menu (Multiple Extension Transfer)

Multiple Extension Transfer provides callers the ability to access a list of transferable options within the CONNECT system.

Basic Operator Transfer setup enables users to press '0' from anywhere within the system and be transferred to a single pre-determined number. *Multiple Extension Transfer* replaces this and instead of being automatically transferred, the caller is instead provided a list of available transfer options from which to choose.

Multiple Extension Transfer is an optional module that must be purchased separately. This functionality is controlled via the license key and if this menu is not visible within the configuration tool then the system is not licensed. Operator Transfer must be enabled and operating within the constraints of the available hours (see Operator Transfer) and exclude dates (See Transfer Exclude Dates).

If the system has more than nine transfer numbers then submenus can be created much like an Information Menu.

> *To access this option, open the Configuration Tool and go to CONNECT in the menu bar. Click on 'MET Menu' on the left navigation bar.*

Language Selection

Please select from the three available languages (English, Spanish or French) that the menu configuration applies to. This will default to English.

Figure 48 - Consortia Mode

Information Menu MET

This menu option uses the same setup as that defined in the Information Menus module. For instructions on how to configure this menu see the Information Menus section.

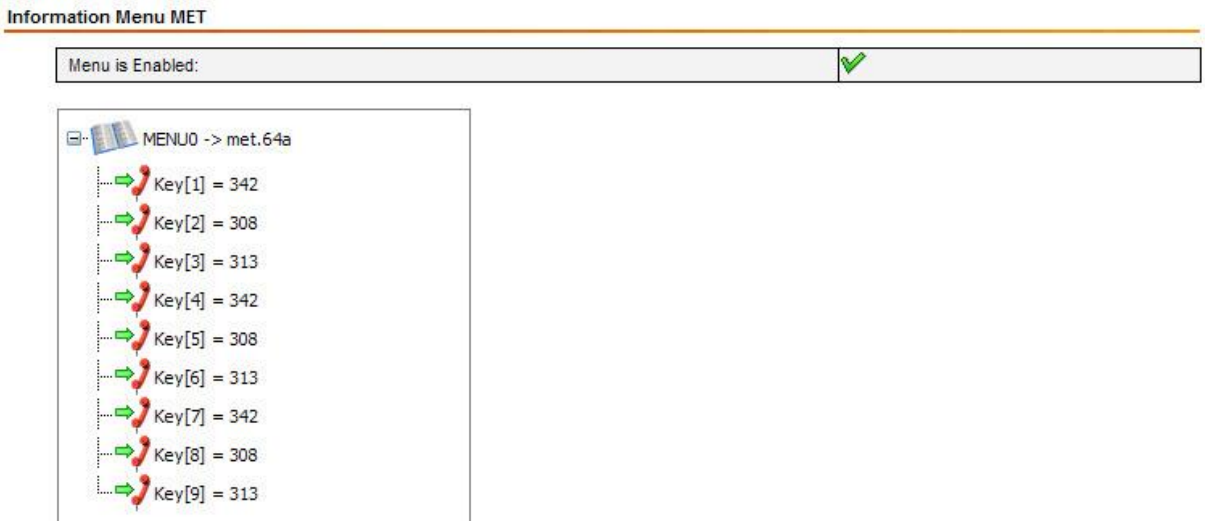


Figure 49 - MET Menu

i-tiva MESSAGE

Overview

i-tiva MESSAGE efficiently deliveries library notifications to the users, such as overdue or reserve collection notices. The system calls library users and delivers a high quality courteous message according to the library's specific requirements. Information is delivered faster and cheaper than traditional postal methods, with accurate proof of delivery provided.

The library can personalise each message to name the person who the notice is for using Text to Speech technology. i-tiva MESSAGE will also list the number of overdue or reserved items.

The basic flow for delivering a message via the i-tiva system is shown in the diagram below:

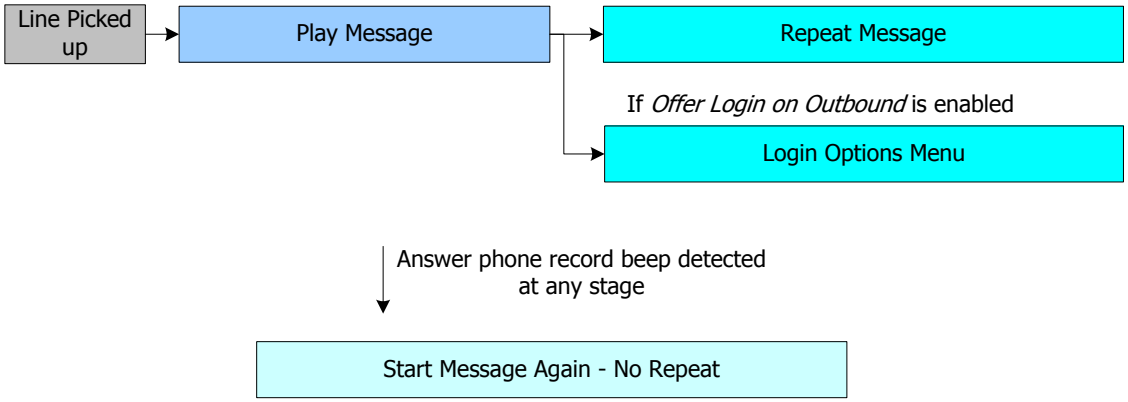


Figure 50 - MESSAGE Operation

This diagram can be described as:

- System makes call and waits for user's phone to pickup.
- User's phone picks up, system starts analysing call and delivers message.
- If the library has chosen to give the user the ability to login then an options menu will be heard at the end of the call, otherwise the message will repeat.
- Repeating the message occurs on all answered results and cannot be disabled. This is because in certain cases i-tiva cannot or will not detect the presence of an answering machine or service and in those cases a full message, be it in multiple parts, can be left on the answering service.
- If a record beep is detected at any stage in the call, the system restarts the message from the beginning and does not repeat – any message that is delivered to a detected recording system will not be given the ability to login.

This section explains how to set times to dial out to library users, manage the holiday schedule, and operate the File Transfer settings.

MESSAGE Options

This page provides the ability to select the range of messages that are supported and the options available within MESSAGE.

> *To access this option, open the Configuration Tool and go to MESSAGE in the menu bar. Click on 'MESSAGE Options' on the left navigation bar.*

Messages Available

This option determines the messages that are to be delivered for dialling. A check indicates that the system will attempt to deliver that message type. Unchecked means that the system will ignore any attempts to deliver that message type and will export them back to the LMS as unsuccessful deliveries.

Messages Available

Fines:	✓	PreOverdues:	✓
Overdues:	✓	Second Overdues:	✓
Third Overdues:	✓	Recalls:	✓
Reserves:	✓	Reserve Canceled:	✗
Reserve Expired:	✗	Custom:	✓
Suspended:	✗	PreReserve:	✗

Figure 51- Messages Available

MESSAGE Features

MESSAGE Features

Introduction identifies library	✓
Introduction reveals intention	✓
Name that person:	✓
Enable Overdue Branch Breakdown	✓
Goodbye plays recorded library phone number	✓
Consider Message Delivered On Answer	✓
Swap Patron Names:	Don't swap

Figure 52 - MESSAGE Features

- **Introduction Identifies Library:** This option is used to identify the library at the beginning of the call.

- **Introduction reveals intention:** This option informs the user at the beginning of the phone call if it is regarding overdue or reserve items. If it is regarding another notice type or the phone call includes multiple types of notices then the system will not reveal the intention at the beginning of the call.

- **Name That Person:** The standard delivery method used by the i-tiva platform. Uses Text to Speech to speak the patron's name, in order to deliver a more personalized message.

- **Goodbye Plays Recorded Library Phone Number:** At the end of the call the system plays a prompt of the phone number that is associated with a given Library.

- **Enable Overdue Branch Breakdown:** Determines if i-tiva will play the branch of the library a book must be returned to. If the patron has books that must be returned to multiple branches then the system will name each branch. Most libraries do not worry about which branch a book is returned to as long as it's returned, so this functionality is typically disabled.

- **Swap Patron Names:** Determines the behaviour of i-tiva when speaking the first name and surname of a user. This functionality depends on how the name is received from the LMS.

    - **Don't Swap:** This functionality does not swap the first and last name.

    - **Always Swap:** This functionality will always swap the user names.

    - **Swap only on Comma:** This functionality will only swap user names if there is a comma in the name being provided to i-tiva, e.g. Smith, William.

Offer Login on Outbound

Offer login provides the user with the ability to login to their account once the original message has been delivered.

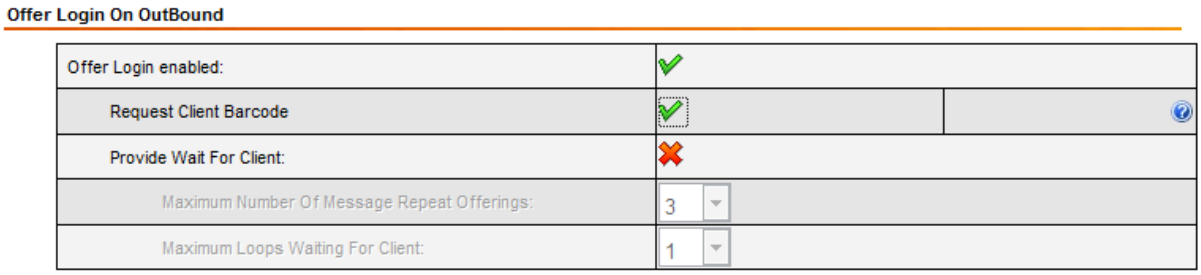


Figure 53- Offer Login on MESSAGE (Outbound)

- **Offer Login Enabled:** Determines if i-tiva will offer the user the ability to login to their account at the end of the phone call.

- **Request Client Barcode:** Only functions if *Offer Login* is enabled. A check indicates that once the user has elected to login to their account, i-tiva will request the user enters their barcode. Unchecked indicates that i-tiva will use the barcode provided in the MESSAGE notice file.

- **Provide Wait For Client:** Only functions if *Offer Login* is enabled. This function offers the person who answers a call the ability to hold the call until the named user can come to the phone, before proceeding to login to the system. The user then has to press '1' on the phone to continue to login to the system.

- **Maximum Number of Message Repeat Offerings:** Only available if *Provide Wait For Client* is enabled. The number of times the system will repeat the offer to login.

- **Maximum Loops Waiting for Client:** Only available if *Provide Wait for Client* is enabled. This is the number of loops that the 'waiting for user' message will be played before the system disconnects the call.

Dialling Time Slots

Dialling Time Slots determine when the i-tiva system will dial each day. You can have multiple time slots for any one day. Exclude Dates provide the ability to determine specific days that the i-tiva system will not dial, even when a notice file is received.

Dialling days can also be prevented by ensuring the LMS system does not provide a file to dial on specified days (consult your LMS vendor to do this). Such an arrangement may prove an easier way in which to manage the system.

All dialling times are entered in 24 hour format.

The start time for a time slot should be at least half an hour after the Import end time (See File Transfer) and end at least half an hour before the Export start time. This ensures that consistent dialling takes place and the integration between the LMS and i-tiva works smoothly.

Time slots cannot overlap one another. For example you should not have a time slot of 9:00am – 12:00pm and 11:30am – 1:00pm on the same day. Doing so may have adverse effects on the delivery of messages.

If no times are set the system will not dial for that day, and notices will be exported back as undelivered.

> *To access this option, open the Configuration Tool and go to MESSAGE in the menu bar. Click on 'Dialling Time Slots' on the left navigation bar.*

Attempt Settings

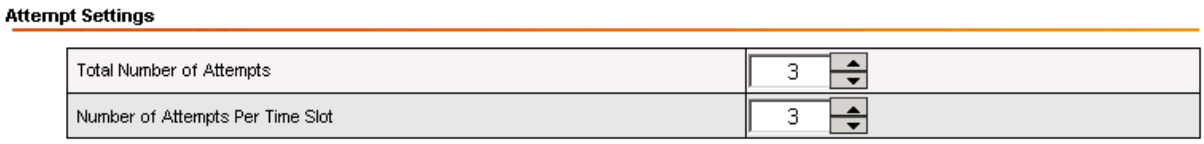


Figure 54 - Attempt Settings

- **Total number of attempts**: The total number of attempts to contact a user in a campaign before an unsuccessful result is logged.

- **Number of attempts per timeslot**: The total number of attempts to contact a user in a given configured time slot.

Dialling Time Slots

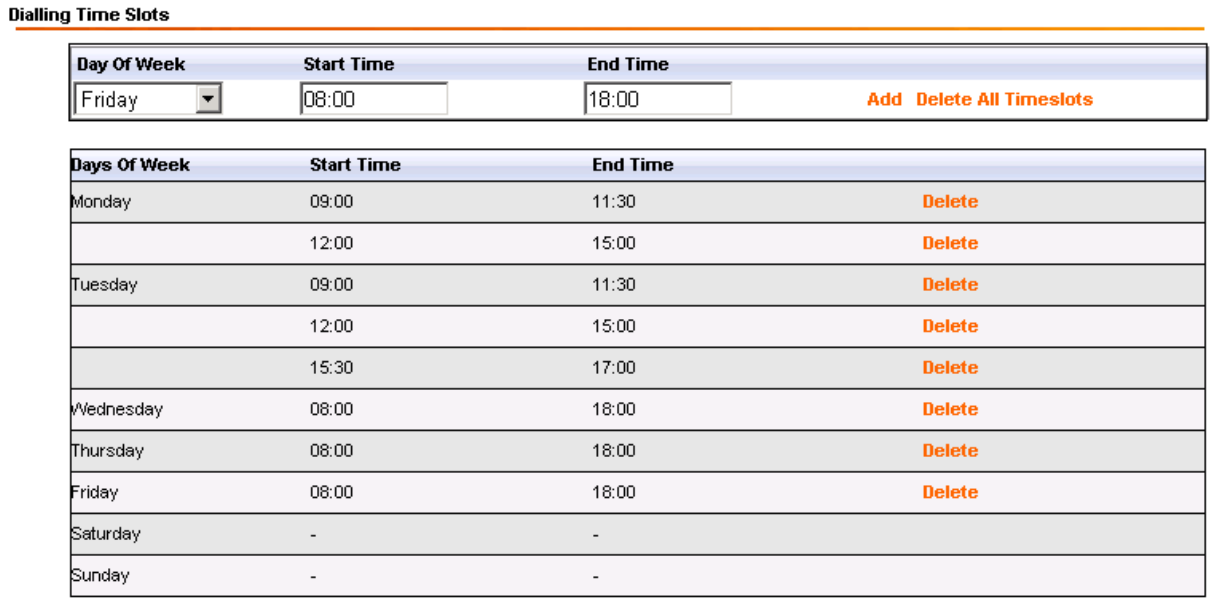


Figure 55 - Dialling Time Slots

- **Add:** Select the day for which a time slot is to be entered in the left most list box. Select the start time and stop time (in 24hr format) for the time slot and click Add. The new time slot will appear in the table with the relevant start and stop times.

- **Delete All Timeslots:** Removes all dialling time slots from the table.

- **Delete:** Removes the selected dialling time slot.

File Transfer

i-tiva sends and receives notice files from a remote LMS. Depending on how that process is negotiated between the i-tiva system and the LMS, the notice file is placed by the LMS on the i-tiva system or a known location from where the i-tiva system can retrieve it. The unsuccessful notices will also be placed in a pre-determined location dependant on the nature of the file transfer.

When i-tiva imports a notice file, the file will be deleted from the import location to prevent the file being re-imported upon the next triggering of the Import routine. The file will be archived before deletion by i-tiva in case of import failure. Result files can be easily re-exported by i-tiva, so failures in the export file transfer can be re-attempted.

> *To access this option, open the Configuration Tool and go to MESSAGE in the menu bar. Click on 'File Transfer' on the left navigation bar.*

Considerations

Ensuring the values within this page are correct will mean that the file transfer process proceeds as smoothly as possible. For example some operating systems are case sensitive so NOTICE.TXT is not the same as notice.txt.

If the LMS is setup to send multiple notice files to i-tiva in a single day – for example at 8am, 12pm, and 4pm – the i-tiva export process must be setup correctly to ensure that all the results are received by the LMS. To do this please make sure that the *Job Stop* time happens before the beginning of the *Export Between* times. In that case all campaigns for the day will be marked as complete before the export window, will export at the same time, and be appended to each other.

LMS Configuration

LMS Configuration

Enable File Exchange	✔
Transfer Mode:	None
FTP Server Address:	Type Server Address
Remote UserName:	Type Remote User Name
Remote Password:	••••••••••••••••••••
Default Import Area Code:	Type Area Code
Import Directory:	C:\Itiva\Import
Export Directory:	C:\Itiva\Export
Remote Import Directory:	Type Remote Import Direc
Remote Export Directory:	Type Remote Export Direc
Notice File To Import:	Notices.csv
Notice File To Export:	Results.csv
Only Export Failed and Rejected Cases	✘

Figure 56 - LMS Configuration

Note: The faded out / grey boxes can be activated (i.e. appear for you to amend) by changing the *Transfer Mode* from 'None'.

- **Enable File Exchange:** If you require messages to be imported, ensure that a tick is displayed.

- **Transfer Mode:** *(Default = None)* The file transfer mode that the system uses to transfer the file(s) to and from i-tiva:

    - **None:** Notice files are picked up from a directory on the local machine defined in the Import and Export directories. Using this mode the ILS will typically push the file to i-tiva via FTP or Fileshare.

    - **FTP:** i-tiva will retrieve the notice file from a remote FTP server.

    - **File Share:** i-tiva will retrieve the file notice file from a shared location on the network. This should be the IP address or name for a networked computer with a shared directory. For example: "\\192.168.0.2\Import".

    - **FTP Once a Day:** i-tiva will retrieve the notice file from an FTP server. With this setting i-tiva will only attempt to pick up the notice file once at the beginning of the import time window (LMS specific).

- **FTP Server Address:** *(Default = None)* The IP address of the server that the i-tiva system is importing and exporting the notice file or unsuccessful file to and from.

- **Remote Username:** *(Default = None)* The username for a valid user with read/write permissions on the remote import/export server.

- **Remote Password**: *(Default = None)* The password for a valid user with read/write permissions on the remote import/export server.

- **Default Import Area Code:** The local dialling area code for the i-tiva system. This helps i-tiva determine the dialling rules for phone numbers. This setting is only used on Digital Systems.

- **Import Directory:** Local directory where files will be imported from. Remote files will be copied here before being imported (this is required).

- **Export Directory:** Local directory where files will be exported to. Remote files will be copied here before being exported (this is required).

- **Remote Import Directory:** Remote directory where files will be imported from. Remote files will be copied to the local import directory before being imported.

- **Remote Export Directory:** Remote directory where files will be exported to. Export files will be copied from the local export directory before being exported to this location.

- **Notice File to Import:** The name of the notice file that the i-tiva system will be importing. Must be the exact name as it appears in the Import/Transfer directory (required).

- **Notice File to Export:** The name of the notice file that the i-tiva system will be exporting back to the LMS. Must be the exact name that the LMS server will be expecting in the Export/Transfer directory (required).

- **Only Export Failed and Rejected Cases:** When selected, the export file will only contain the failed and rejected cases. (LMS specific)

Import/Export Times

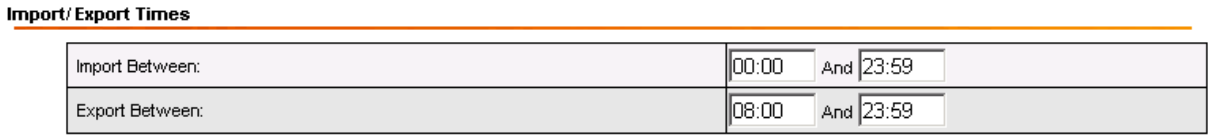


Figure 57 - Import/Export Times

- **Import Between:** Specifies the particular time that the i-tiva system will check for notice files. The i-tiva system will check every 10 minutes between the times specified if FTP or FileShare and 2 minutes if local. If this period falls in the same window as the LMS generation of the notice files, there may be times when the i-tiva system picks up two files for the same job. To avoid this happening the import time must be outside the time the LMS generates the notice file. Dialling times should start at least half an hour after this time.

- **Export Between:** Specifies the time i-tiva will attempt to export any finished jobs. Dialling times should be finished at least half an hour before this time.

Job Start/Stop Times

This setting specifies the particular time window that the imported campaign is valid for. Campaigns will not dial outside this time range. This setting should be set for at least 15 minutes prior to the first configured dialling time slot and 15 minutes after the last configured dialling time slot (see Dialling Time Slots). The stop time should be configured at least 15 minutes before the Export time.

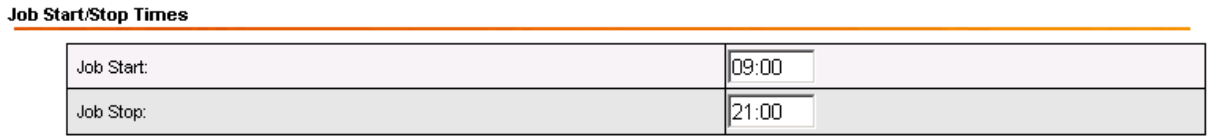


Figure 58 - Job Start/Stop Times

Exclude Dates

This page provides the ability to select the range of messages that are supported and the options available within MESSAGE.

> *To access this option, open the Configuration Tool and go to MESSAGE in the menu bar. Click on 'Exclude Dates' on the left navigation bar.*

Import Settings

This setting sets the format for dates used in the message import file. The Default setting is DMY, with MDY as an alternative choice. DMY means that i-tiva will interpret the first section of the date as the day followed by the month and finally the year. Conversely MDY means that i-tiva will interpret the first section of the date as the month followed by the date and finally the year.

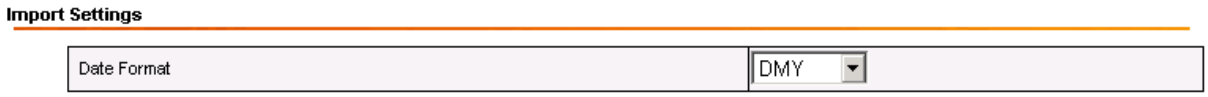


Figure 59 - Import Settings

Exclude Dates

Using *Exclude Dates* the user can determine specific days that the i-tiva system will not dial, even when an imported notice file is received. The default behaviour is for i-tiva to simply return the file to the LMS as normal at the end of the dialling period, with none of the numbers dialled.

Dialling can also be prevented on certain days by ensuring the LMS system does not provide a file to dial. Such an arrangement may prove an easier way in which to manage the system. Please contact Support for more information.

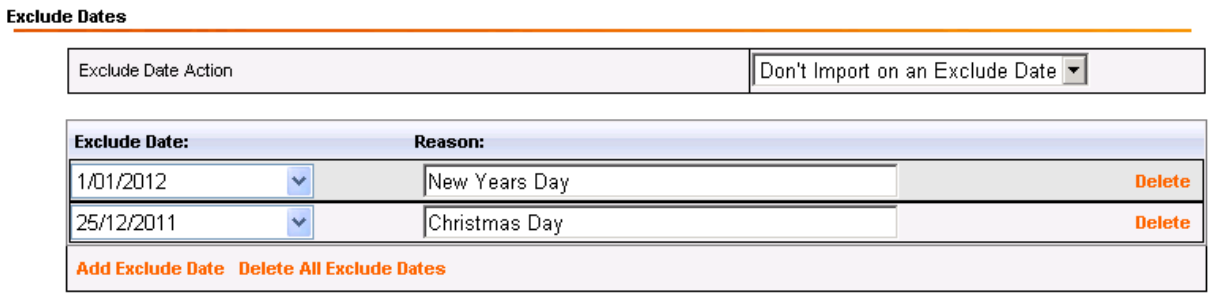


Figure 60 - Exclude Dates

- **Exclude Date Action**: Determines the behaviour of i-tiva on the days that are configured as exclude dates. The default setting is *Don't Import*.
    - **Don't Import:** i-tiva will ignore any file that is placed into the import location. If the file remains in the import location then it will be imported on the next import day that is not an Exclude Date. Please consider the behaviour of the LMS when a notice file has not been collected by i-tiva.

- **Import for the next dialling day**: The file will be imported on the day of the Exclude Date but dialled on the next scheduled dialling day. Consider with this setting that i-tiva may exceed capacity on the days following an Exclude Date due to the many more notices it may be expected to dial. If capacity is exceeded, the system may not achieve the contact rate it would on a normal dialling day and some attempts may not even be tried. In such cases these notices are exported as being unsuccessful and are handled by the LMS accordingly.

- **Import, don't dial and export**: i-tiva will simply return the file at the end of the dialling period with none of the notices dialled. These notices are then exported as being unsuccessful and handled by the LMS accordingly.

- **Add Exclude Date Button:** Inserts a new date into the list of dates to exclude from dialling.

- **Delete All Exclude Dates Button:** Clicking on the Delete All button removes all the Exclude Dates from the list.

- **Exclude date:** Choose a date you wish to have excluded by selecting from the date drop-down-menu.

- **Reason:** Type a description or reference for the excluded date (e.g. Christmas Day) in the edit box. The description cannot be more than 30 characters. The description allows you to easily recognize which dates are being excluded.

- **Delete Button:** Deletes a single Exclude Date from the list.

i-tiva SMS

Overview

i-tiva SMS works in much the same way as the i-tiva MESSAGE voice system, in that it automatically intercepts standard library notices such as reservations, overdues, and item recalls from the LMS and assumes responsibility for delivering the information to library users. Instead of voice messages as per the i-tiva MESSAGE system, i-tiva SMS translates the notices into mobile phone text messages and delivers them to user's mobile phones.

SMS messages are sent through an SMS gateway. An SMS gateway is a service provided by TALKINGtech to send SMS messages on behalf of the library. The library will have to sign up for this service. The connection details will be provided by Support once the library has signed up.

Account Details

Before you begin you must configure at least one SMS profile. This profile is used to store your SMS connection details to the SMS gateway. If you have not created a profile before you must select Create New to create a new profile. The SMS profile details will be provided by Support.

> *To access this option, open the Configuration Tool and go to SMS in the menu bar. Click on 'Account Details' on the left navigation bar.*

Account Settings

Create and select the active account for sending SMS messages.

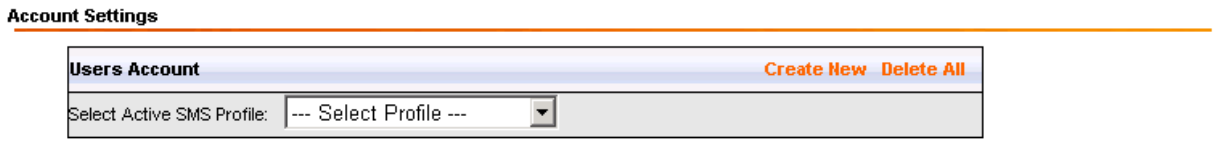


Figure 61 - Account Settings

Creating a New Profile

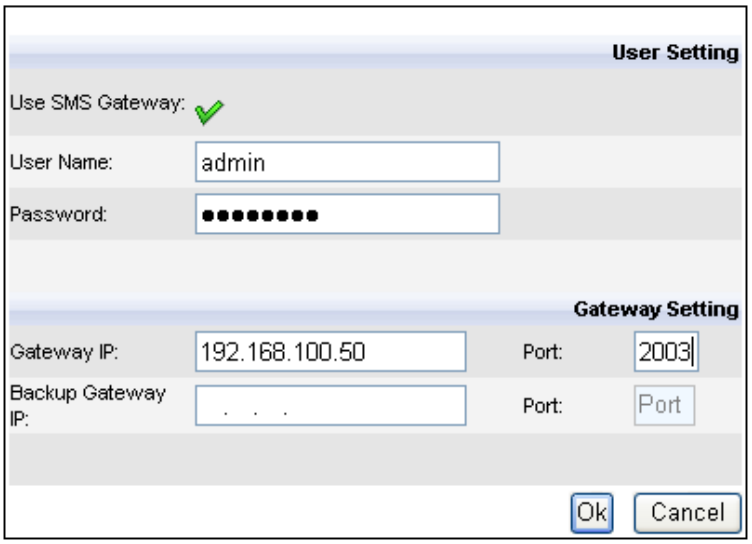


Figure 62 - New Profile

- **Use SMS Gateway:** Indicates whether the library is using a gateway. This should always be selected.
- **User Name:** If using a gateway (above), the username required for the gateway.
- **Password:** If using a gateway (above), the password required for the gateway.
- **Gateway IP/Port:** IP address and port of the gateway.
- **Backup Gateway IP/Port:** IP address and port of the backup gateway.

Account Settings

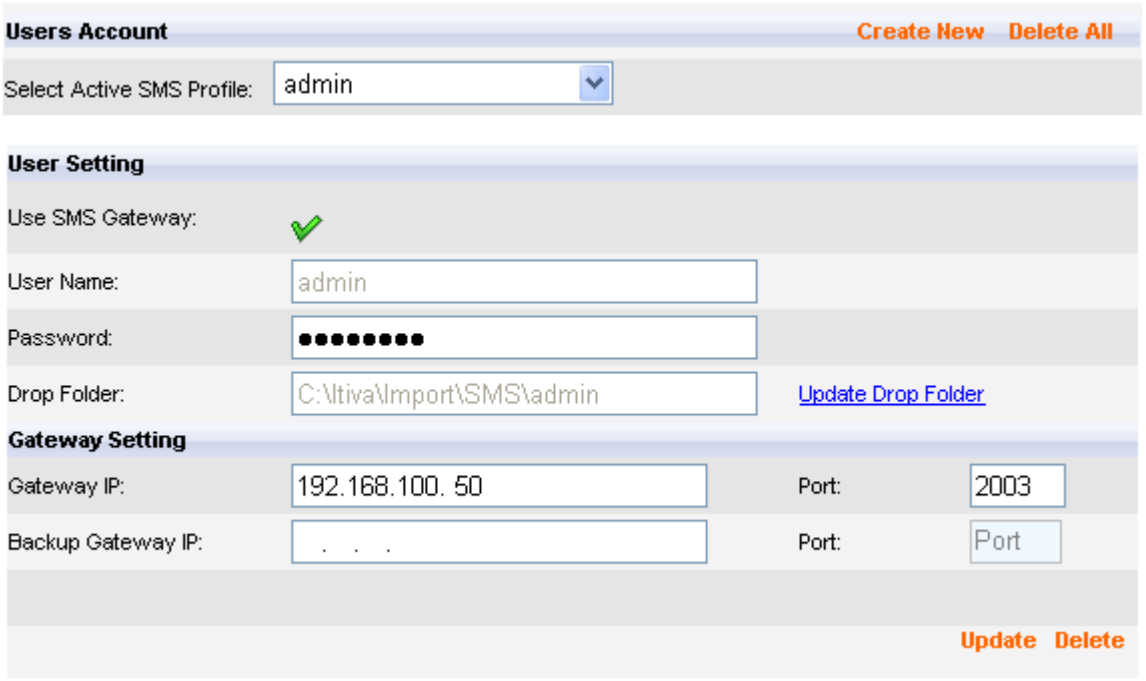


Figure 63 - Account Settings

- **Select Active SMS Profile:** The drop down menu provides a list of profiles that can be used. Most libraries will only require a single profile.
- **Use SMS Gateway:** A gateway sends the SMS messages on behalf of the system. This option should always be enabled.
- **User Name:** The username required for the gateway.
- **Password:** The password required for the gateway.
- **Drop Folder:** The drop folder of the file.
- **Gateway IP / Port:** IP address and port of the gateway.
- **Backup Gateway IP:** IP address and port of the backup gateway.

Note: Once you have created a new profile, it is not automatically selected – you need to reload the page again and select the profile from the *Select Active SMS Profile* box.

Message Options

This page defines the typical message options, including the size of the standard fields, the dialling prefix, and the branch codes.

> *To access this option, open the Configuration Tool and go to SMS in the menu bar. Click on 'Message Options' on the left navigation bar.*

SMS Message Options

The *Branch*, *PatronName* and *ItemCount* fields allow for their maximum length to be defined; the Field Length box will become active for these fields when they are selected. Should a field length exceed the character limit imposed in the Field Length box, it will be truncated to the maximum length specified and have an ellipsis (…) appended. If set to zero then no truncating will occur and the full length of the field will be inserted into the SMS message; **be careful, if the field is large it may create an SMS message greater than 160 characters**, which will result in the full SMS message being truncated.

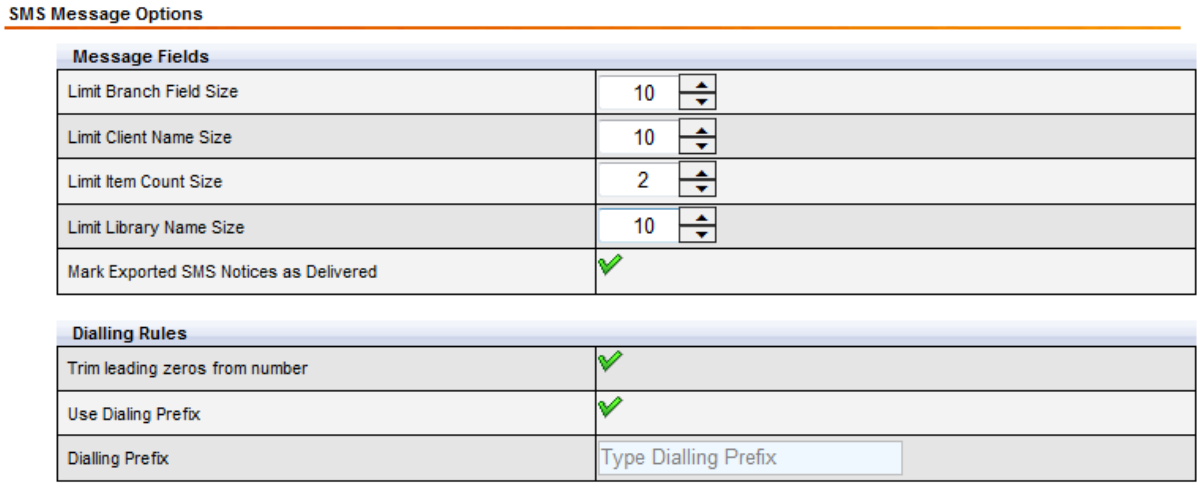


Figure 64 - SMS Message Options

Message Fields:

- **Limit Branch Field Size:** The number of characters displayed for the branch name.
- **Limit Client Name Size:** The number of characters displayed for the user name.
- **Limit Item Count Size:** The number of characters displayed for the count of items.
- **Limit Library Name Size:** The number of characters displayed for the library name.
- **Mark Exported SMS Noticed as Delivered:** With certain LMS configuration it's required that the SMS messages are considered successfully delivered so that further notices are not generated for that user. When disabled i-tiva will not generate successfully delivered notices.

Dialling Rules:

- **Trim leading zeros from number:** Determines if i-tiva should trim any leading numbers from the phone number before being imported. This setting depends on the typical phone number format of the region and may require consultation with Support.
- **Use Dialling Prefix:** Enables or disables the use of the dialling prefix below.
- **Dialling Prefix:** The specification of the international code that will be used for mobile numbers that are not supplied with one.

Branch Codes

Branch code mappings provide i-tiva SMS the ability to convert branch codes (as they appear in the notice file) to branch names (as they should appear in text messages to users). Typically only branch codes will be provided to i-tiva, so these mappings enable the software to replace the code with text more readable to the user.

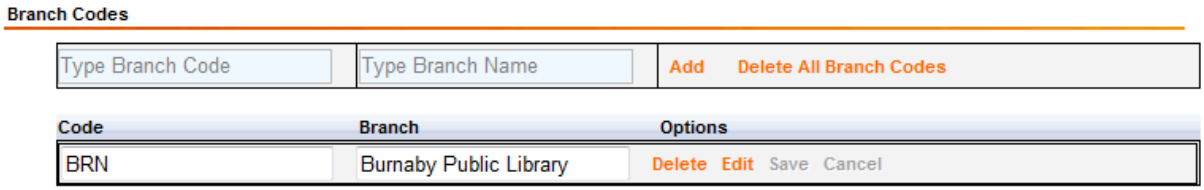


Figure 65 - Branch Codes

- **Branch Code:** The branch code of a particular branch of the library.
- **Branch Name:** The corresponding branch name.
- **Add:** Adds the configured branch code to the list of recognised branch codes.
- **Delete All Branch Codes:** Removes all branch codes from the list.
- **Delete:** Delete the current branch code.
- **Edit:** Enable editing mode of the current branch code.
- **Save:** Save the branch code, if in edit mode.
- **Cancel:** Cancel a change, if in edit more.

Considerations

The maximum number of characters that can be sent out in a single SMS message is 160 (some mobile phones allow for more characters than this, but that involves breaking the message into 140-character segments and sending these as different messages). If a message exceeds 160 characters, it will be truncated and an ellipsis (...) will be appended.

Configuration

This page allows you to configure the content of the SMS messages, defining how each SMS message will be constructed. The message type to be delivered is located in the dropdown box to the top left. The dropdown box contains all the message types that can possibly be delivered.

> *To access this option, open the Configuration Tool and go to SMS in the menu bar. Click on 'Configuration' on the left navigation bar.*

Considerations

Depending on your MESSAGE configuration and the message types your LMS supports, i-tiva may not recognize them all. The SMS message types listed are all the available message types. Any message type specified must be provided by your LMS vendor in the notice file.

SMS Configuration

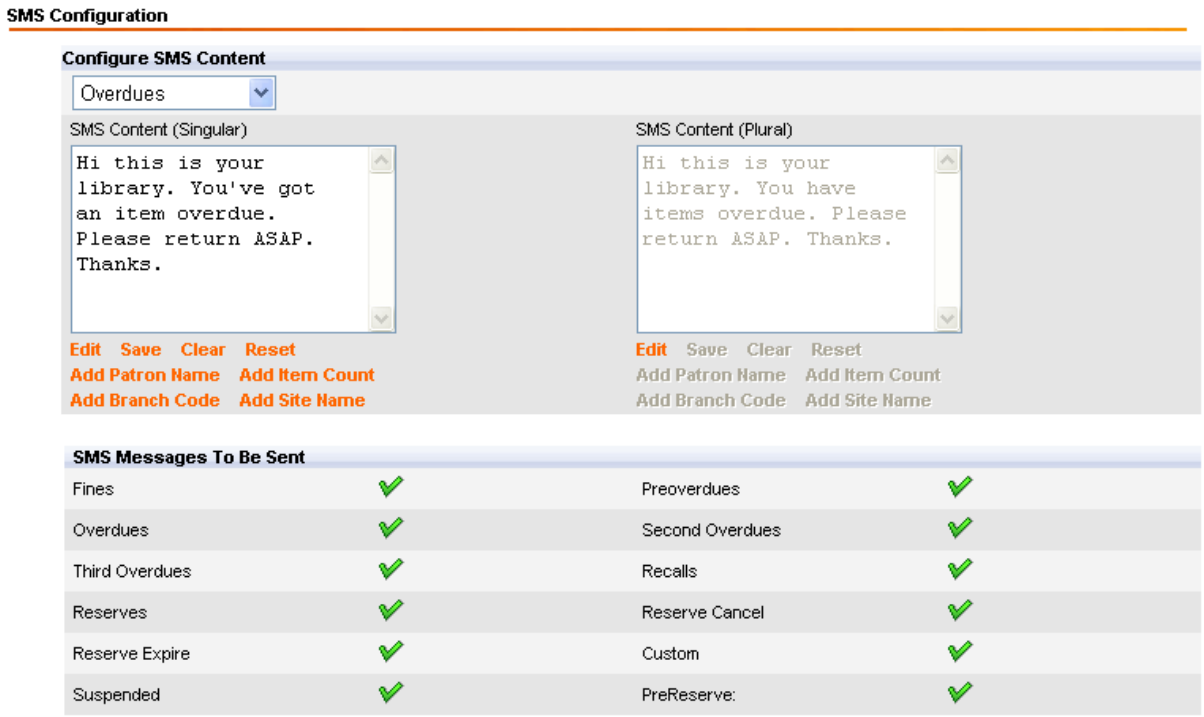


Figure 66 - SMS Configuration

- **SMS Selection:** A dropdown menu of all the available message types (top left). Once you have selected the message type you can edit the content of the message.
- **SMS Content:** *(Singular)* The message content of a singular item message.
- **SMS Content:** *(Plural)* The message content of a plural items message.

The following options apply to both plural and singular:

- **Edit:** Enables the SMS content to be edited.
- **Save:** Saves any updates made to the content of the message.
- **Clear:** Clears the current SMS message.
- **Reset:** Cancels any changes and stops editing the message.
- **Add Patron Name:** Adds the user specific value for the user name. It will appear in the content as $n.
- **Add Item Count:** Adds the user specific value for the number of items. It will appear in the content as $i.
- **Add Branch Code:** Adds the user specific value for the branch location. It will appear in the content as $b.
- **Add Site Name:** Adds the user specific value for the Library Site name. It will appear in the content as $l.
- **SMS Messages To Be Sent:** Enables the messages that you wish to send. Please note that each of the messages types enabled will require full configuration as described above. However, default messages are set up for each message type, both singular and plural.

Please note: The length of the User Name, Item Count, Branch Code, and Library Name values are subject to the values entered in the *Options* screen. Once you have finished writing or editing your SMS message, select *Save* to save the specific message. Click *Save Settings* to save the *SMS Messages To Be Sent* settings.

File Transfer

The SMS File Transfer window contains the settings that determine how file negotiation is handled between i-tiva and the remote LMS.

> *To access this option, open the Configuration Tool and go to SMS in the menu bar. Click on 'File Transfer' on the left navigation bar.*

SMS Configuration

If an identifier is being used in provided notice files, it must be placed in this field so that the i-tiva system can extract appropriate messages that are to be sent via SMS. Some LMSs do not require this field to be filled in, as they use standard fields to indicate SMS records. Please talk to Support for more information about this setting. This identifier can be a single letter and is not case sensitive.

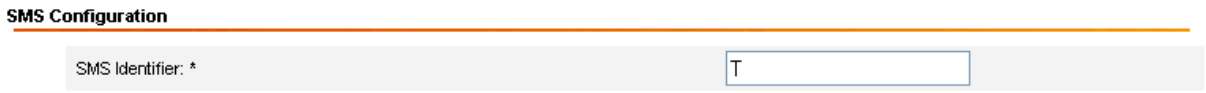


Figure 67 - SMS Configuration

LMS Configuration

These greyed out settings are configured via the MESSAGE File Transfer window. They only become available if SMS is used without MESSAGE (See File Transfer).

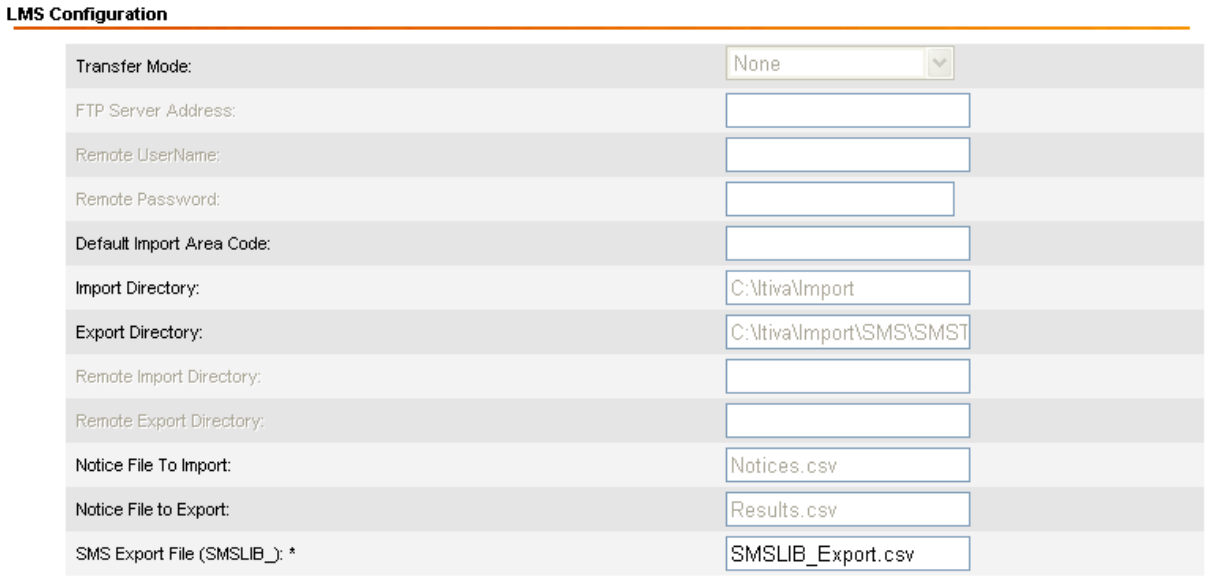


Figure 68 - LMS Configuration

- **SMS Export File (SMSLIB_):** This is the name of the file that is produced when extracting the SMS messages from a notice file provided by the LMS.
-

Note: If you have SMS and MESSAGE enabled, these fields (with the exception of "SMS Export File (SMSLIB_)") will be automatically populated from the values on the MESSAGE File Transfer page. If you only have SMS enabled, you will need to populate all fields (see MESSAGE section for details).

Express Reporting

Overview

Express Reporting is the reporting software for all aspects of i-tiva. It enables users to run reports for the MESSAGE, CONNECT and SMS modules, as well as search usage, month-to-date and user activity information. It is installed with i-tiva as part of the local i-tiva system.

Express Reporting is also available as a standalone installer, which can be installed on another Windows PC with network access to the i-tiva system. The installer can be downloaded from a webpage which the support team can provide details on how to access.

Before you start

Before installing Express Reporting, make sure you have the server connection details available and have already downloaded the standalone installer. Support will provide these details.

As part of the installation process several system components may be updated, so it is advisable that the user who installs the client has administrator privileges on the local machine.

You will also require Microsoft .NET Framework 2.0 to be installed on the local machine. If you are unsure about this requirement please contact your IT Administrator.

Ensure you have an active network connection and can connect remotely to the i-tiva server.

Installation

Close any programs that you may have running, and make sure any anti-virus software that is running in the background is closed.

Double click on the file you have downloaded and follow the on-screen instructions to install the program, restarting your computer if prompted.

Once the setup is complete you can open Express Reports by navigating to Start > All Programs > Express Reports.

Setup

The first time you operate Express Reports on a standalone PC you will be prompted for the connection details of the i-tiva server (Figure 69**Error! Reference source not found.**).

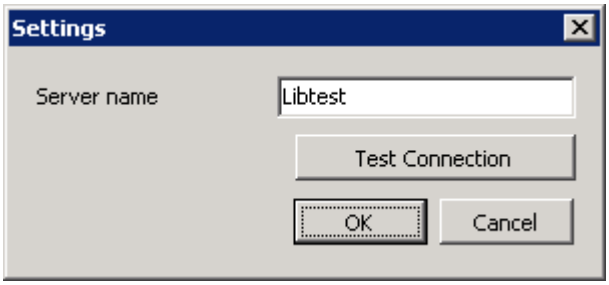


Figure 69 - Express Reporting Connection prompt

The DNS name or IP address of the i-tiva system will need to be entered in the Server name field. You must click Test Connection before you can click OK. This will confirm that what you have filled out as the server name is correct. If you are unsure of what to put in the Server name field, then contact Support.

Using Express Reporting

i-tiva's reporting functionality is handled by the Express Reporter tool, displayed in Figure 70.

To access Express Reporting click on 'Express Reporting' on the desktop of the i-tiva system.

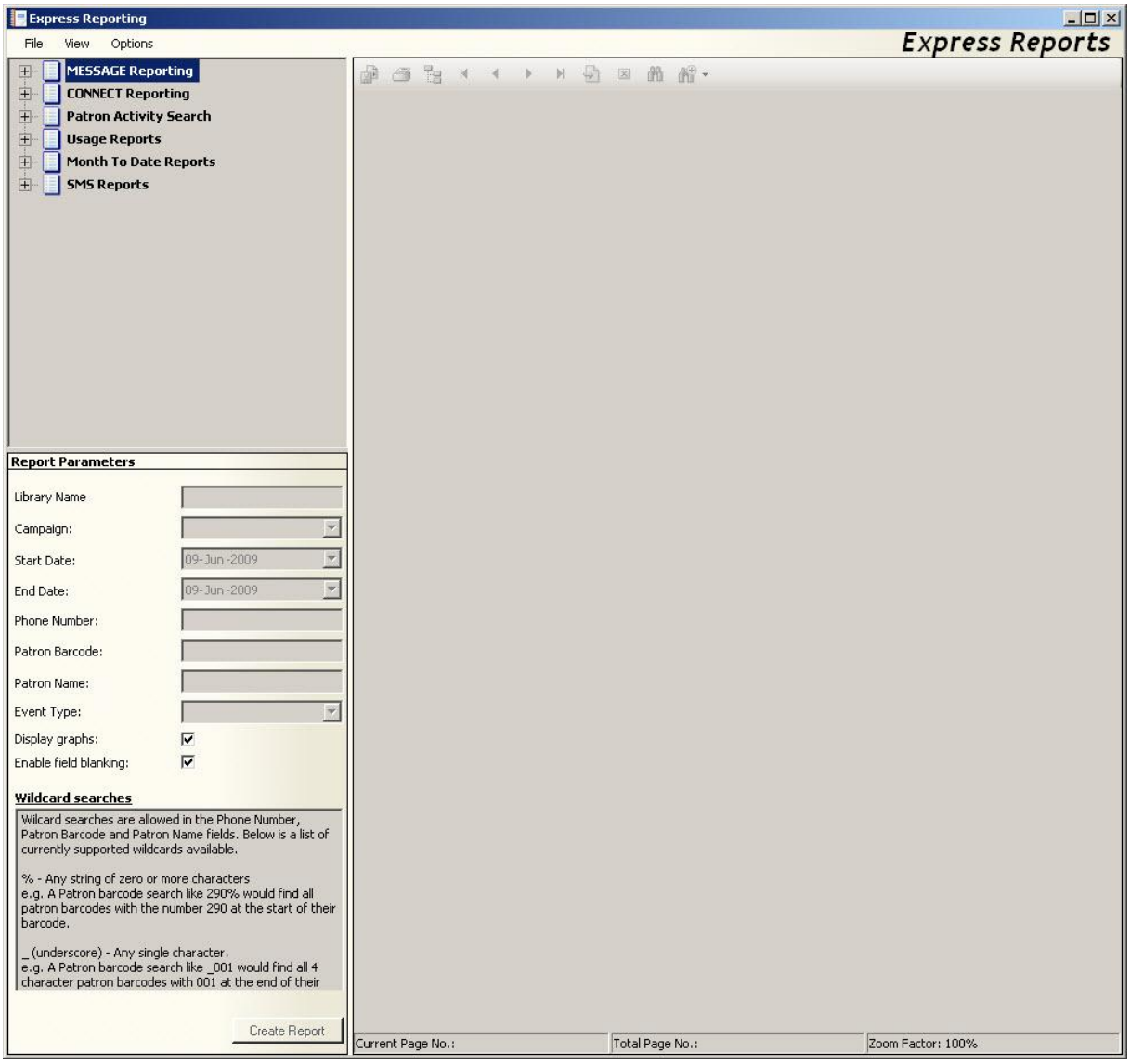


Figure 70 - Express Reporting Start Window

The tool is comprised of three windows:

- **Report Types Window:** Top left, displays the different sets of reports available.
- **Report Parameters Window:** Bottom left, allows users to modify the options for each search (invalid parameters for the chosen report type are greyed out).
- **Report Window:** The main window, displays each report once the Create Report button is clicked.

Express Reporting Menu

In the top left of the window is the Express Reporting menu bar.

The View Menu, as displayed in Figure 71, allows users to select which report types should be displayed in the Report Types window. This can be useful if certain report types are not used by your library.

Figure 71 - Express Reporting View Menu

Report Toolbar

The different options available for browsing and managing each report are displayed in the tool bar at the top of the Report Window, a close-up of which is shown in Figure 72.

Figure 72 - Report Toolbar

This toolbar provides buttons (from left) to: save the report, print, display the report navigation panel, browse/jump to different pages of a generated report, search for text, and zoom in on the report.

The following sections outline the different report sets available in Express Reporting (displayed in the Report Types window at top left).

Please note: Depending on the i-tiva modules purchased, some report sets may not be available.

MESSAGE Reporting

When expanded, the MESSAGE Reporting list displays the different report types available for dialling results as shown in Figure 73.

Figure 73 - MESSAGE Reporting Menu List

Select the report types desired from the list, and then use the drop-down Campaign box in the Report Parameters section to select the campaign for which you wish to see results.

For the relevant reports, you can also select *All Campaigns* from the Campaign drop-down box and then specify a date range, should you want to view results from a greater span of time.

Summary reports also allow for the option of displaying graphs; this functionality is enabled by default, but can easily be disabled by deselecting the *Display graphs* checkbox at the bottom of the Report Parameters section.

Once you have selected the report parameters you want, click the *Create Report* button at the bottom and the report will be displayed in the main window.

For a description of the call results, see: Appendix D - MESSAGE call results

CONNECT Reporting

Expanding the CONNECT Reporting list displays all the different CONNECT reports available for viewing in the Express Reporting tool. As with MESSAGE reports you select the desired report from the list, but all reports require you to select a date range for the report to display statistics about.

Upon clicking the *Create Report* button, the report will be displayed in the main window with the relevant data displayed in three separate tables; providing statistics grouped by month, day of the week and by hour of the day.

Please note that CONNECT reports do not have graphs associated with them.

Patron Activity Search

The Patron Activity Search menu allows users to search either CONNECT or MESSAGE records for a particular user, and view the activity for that person over a specified time period.

Note that while the search is case-insensitive, only exact textual matches will be returned; a search for the user John Paul Smith will fail if only the text 'John Smith' is entered.

The information on Wildcard searches, located at the bottom of the the Report Parameter window (see Figure 74), details certain characters that can be used to carry out advanced searches for both MESSAGE and CONNECT activity.

MESSAGE Activity Search

To view details on the messages i-tiva has delivered (or attempted to deliver) to a user, select MESSAGE Activity Search and enter in the known details. These details must be at least one of the following: Phone Number, Patron Barcode, or Patron Name. Select a date range for your search by filling in the Start Date and End Date fields, and click Create Report.

CONNECT Activity Search

For reports on the CONNECT usage history for a given user, select CONNECT Activity Search and fill in either the target user's name or barcode. As with a MESSAGE activity search, a date range needs to be specified using the Start Date and End Date fields.

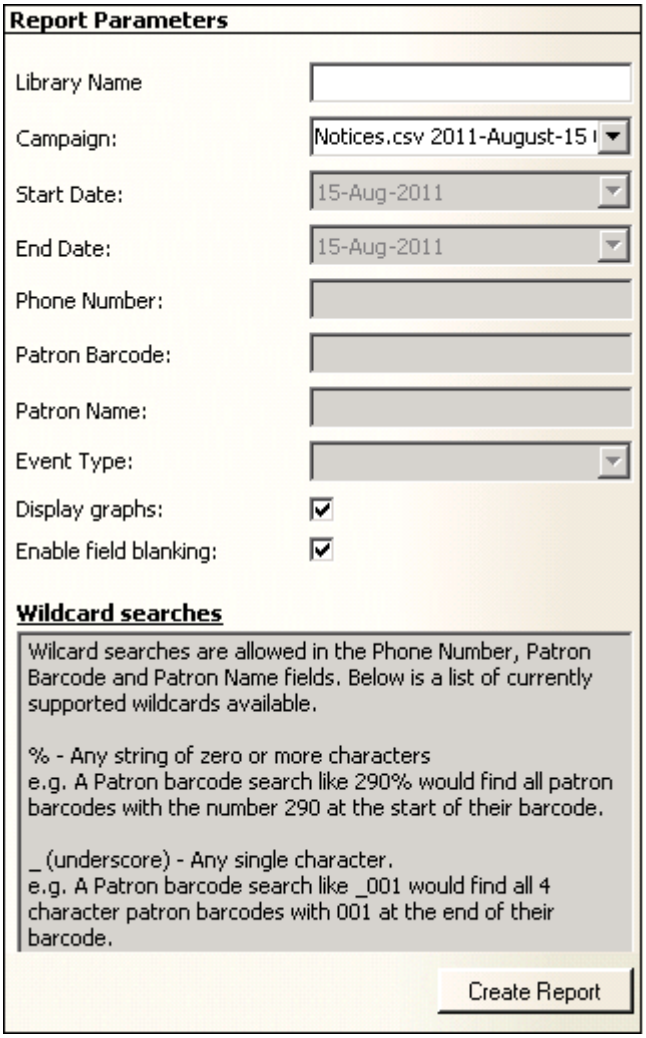


Figure 74 - Report Parameters Window

Usage Report

The Usage Report menu provides access to data that allows users to view a huge range of different statistics relating to both CONNECT and MESSAGE events, such as call transfers, call terminations, notice file imports and exports, item renewal requests, and many others.

There are three different report formats available for displaying the statistics desired; Hourly, Port, and Day Of Week usage reports. The reports are relatively self-explanatory: Hourly usage reports will display the statistics grouped into the hours of the day in which instances of the chosen event occurred; Port usage reports will display the number of events per phone port which occurred during the date range; and Day Of Week reports will display totals for the given event based on the day of the week in which they occurred.

Once the preferred usage report type is selected, the *Event Type* field in the Report Parameter window (see Figure 74) becomes active and users can select which event monitored by i-tiva they would like to display a report for. Alongside the tables generated by these reports, you can also view graphs of the information. Graphs are enabled by default, but can be disabled by deselecting the *Display graphs* checkbox at the bottom of the Report Parameters window.

Month-To-Date Report

The final set of reports available in the Express Reporting tool is accessible via the Month-To-Date menu. The three report types available under the Month-To-Date menu provide summary information for the calendar month-to-date, specific to MESSAGE, CONNECT and SMS services respectively.

The only parameter that can be specified for these reports is the End Date for the month in question; whatever day is selected, the report will display summary information from that day back to the start of the calendar month.

Should you wish, the graph can be omitted from the report by deselecting the Display graph checkbox at the bottom of the Report Parameters window.

SMS Activity Report

The SMS Activity Report requires you only to select a date range for the report to display statistics. However, you may also fill in the Phone Number, Patron Barcode, or Patron Name to further refine results. Filling out multiple fields will deliver all results that match one component of the data, for example if you included the phone number and user name the dataset returned will contain all records that contain either the phone number OR the user name, not just the results that match both of these parameters.

Upon clicking the Create Report button, the report will be displayed in the main window, with the relevant data displayed in separate columns giving the following information:

- SMS Queued
- Patron Barcode
- Phone Number
- Patron Name
- Library
- Message Type
- Item Count

Unlike telephony calls i-tiva is unable to determine if the user has received or read the SMS message. Once the SMS message leaves the i-tiva system it is assumed that it was delivered successfully.

SMS Summary Report

The SMS Summary Report allows you to see a summary of the SMS Messages sent in a campaign. This is very similar in format and content to the MESSAGE Summary Report, as it gives a brief summary of the total number of patrons contacted and the number of messages sent, and below this it gives a breakdown according to the type of notification sent to the patrons.

i-tiva Recording

Overview

i-tiva Recording is a software module that allows you to remotely listen to and update all voice prompts installed on an existing i-tiva system. This gives greater flexibility in the accuracy and speed of the information provided to users, and reduces the process of getting prompts recorded by a third party and installed onto the system.

System requirements

In order to use i-tiva Recording on a desktop (or other allocated) PC, the PC must meet or exceed the following requirements:

- Windows XP, Windows Vista, or Windows 7 operating systems, 32-bit or 64-bit.
- A microphone, sound card and speakers.

Installing and configuring i-tiva Recording

Installation

i-tiva Recording can be downloaded from a web addresses provided by support staff.

Before installation please ensure you close all applications.

Double click on Setup.exe to begin the installation. Follow the onscreen instructions to install i-tiva Recording onto the required machine.

Please note: Once the software has been installed, you will be presented with the Settings configuration window. Please refer to the Settings section below for more information.

To access i-tiva Recording click on Start Menu > All Programs > i-tiva Recording.

Settings

Following installation of i-tiva Recording you will be presented with the Settings configuration window. The Settings section can be viewed at any stage by running i-tiva Recording and clicking on the *Options* menu.

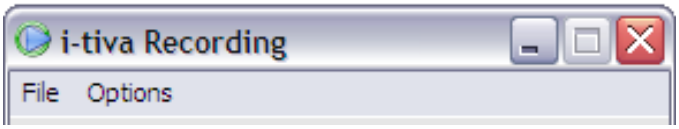


Figure 75 - i-tiva Recording main menu

The Settings configuration window will automatically display the connection tab by default.

There are 3 tabs you can choose from:

- Connection
- Playback and Recording
- Advanced

Once you are satisfied with the settings, click OK to accept the values. If you wish to cancel the settings you changed, click Cancel. When you have finished, you will be brought back to the main i-tiva Recording window.

Connection

The Connection tab shows the settings which i-tiva Recording will use to connect to the i-tiva system. Support will supply you with the information required.

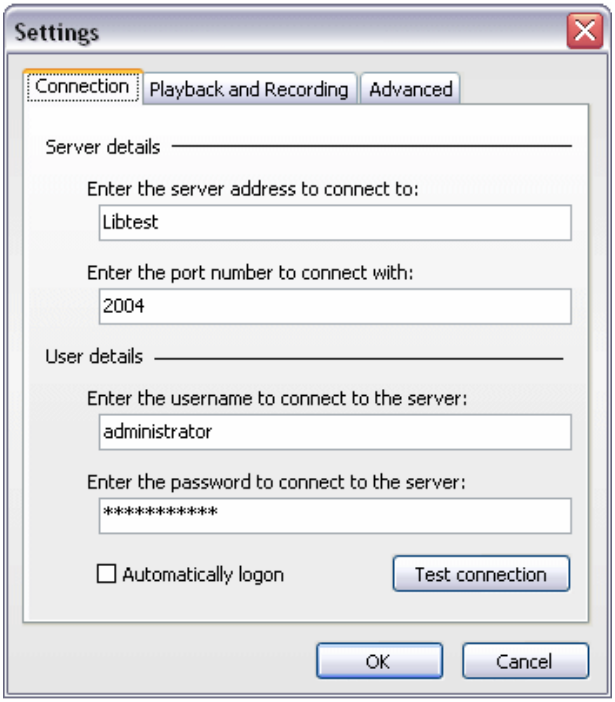


Figure 76 - Settings window – Connection tab

There are four settings that are required so i-tiva Recording can connect to the i-tiva system:

- **Server address:** This is the i-tiva system you will connect to in order to listen to and update prompts. This can be either the IP Address for the server or the Hostname.
- **Port number:** This is the port, by which this client will connect to the i-tiva system (the default port address is 2004).
- **Username:** The username, which will be validated against the i-tiva system.
- **Password:** The password used to validate the username supplied.

If you wish to test these settings, click the *Test Connection button*. This will trigger an attempt to connect to the server, check that i-tiva Recording is licensed, download the prompt catalogue and verify that the server is available and the settings used are correct.

There is also an option to automatically log into the application when you start i-tiva Recording. To enable this functionality tick the Automatically Logon check box.

If the connection fails, please check that all details are correct. If it still cannot connect, attempt to connect from the main screen as this will allow the system to display the reason why the connection has failed. Please contact Support if you have any questions.

Playback and Recording

The *Playback and Recording* tab allows you to set up and test the audio playback and recording device to be used on your machine.

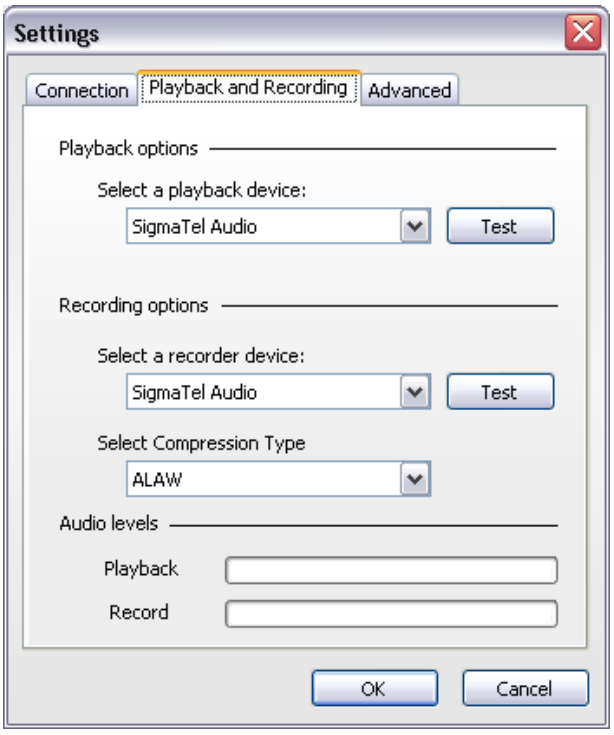


Figure 77 - Settings window – Playback and Recording tab

Setting Up Your Audio Playback Device

From the drop down list under Playback options select the device that you would like to use to listen to prompts.

To test that it is useable in i-tiva Recording, click *Test*. If successful, the message will start playing and the playback audio level will show the relative volume of the message.

Once the message has finished playing or you click stop, you will be asked if you heard the prompt successfully. If you heard it correctly click *Yes*. If you didn't hear the prompt or there was an error stating the device could not be used, you will be given the option of reverting back to the previous device or to ignore the error and continue.

Setting Up Your Audio Recording Device

From the drop down list under Recording options select the device you would like to use to record prompts.

To test that the device selected can be used, click *Test*. The client will then attempt to start recording the sound from the microphone. The record audio level will show the volume of the audio being recorded. You should be able to see the record levels go up when you speak into the microphone.

Once you have recorded some sound, click *Stop*. You will then be asked if you wish to hear the audio recorded, if you click *Yes* the audio will be played back. Once the audio has finished you will be asked if you heard the prompt correctly. If you click *Yes*, the system will update the settings to use the device selected.

There are two options under the Compression Type dropdown box, ALAW and ULAW. The format of the audio file depends on which format the Dialogic card supports. A-law format (*.64a) is used more commonly throughout Europe and μ-law format (*.64u) is used primarily in North America. Check the specs of your Dialogic card to see which format to choose – some cards support both formats and if this is the case then select ALAW, as this is the format that i-tiva uses when both are available.

The i-tiva system has a pair of files for each prompt; one in 64a format and one in 64u format. It is important that the Compression Type is set correctly, as this dictates which file to update when re-recording a prompt. If you set the Compression Type to the wrong format, the file that the Dialogic card plays won't be the same as the one that i-tiva Recording updated.

Advanced

The Advanced tab of Settings allows you to override the default audio filters used on audio which is recorded or imported.

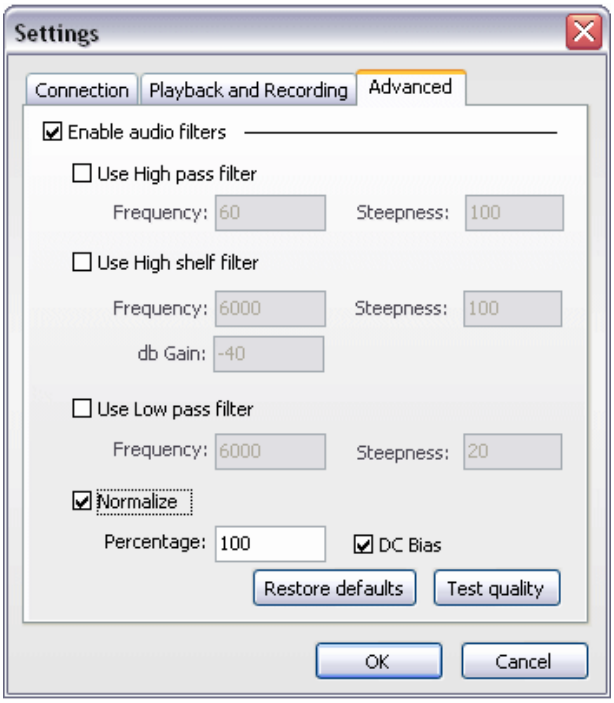


Figure 78 - Settings window – Advanced Tab

The filters allow you to enhance the quality of your recordings. This may be required if the recordings are of low quality, for example a loud noise in the background, fuzzy tone etc.

There are four filters that can be applied to the audio:

- **High Pass Filter:** The High Pass filter cuts the lowest frequencies and passes the highest.
- **High Shelf Filter:** The High Shelf filter decreases the volume of the lowest frequencies and passes the highest.
- **Low Pass Filter:** The Low Pass filter allows only the lower frequencies to be present in the audio.
- **Normalize:** Amplifies the audio to within the specified percentage of the maximum level.

At any stage you can listen to the effect of the filters by clicking on *Test quality.*

If you need to manipulate your recordings and require some help, please contact Support.

Please note: The default settings are the recommended values used for filtering audio to be played over a phone line. If at any stage you wish to reset the audio filter settings, click on the Restore defaults button. This will restore the recommended values.

Using i-tiva Recording

Connecting

You can connect to the i-tiva system in two ways. From the File menu select *Connect*, or you can click the *Connect* button on the main login screen.

Figure 79 - i-tiva Recording login window

The system will then attempt to connect to the server using the details specified in the Settings (see Connection, for more information).

Once you have successfully connected, you will be presented with the main i-tiva Recording window (see Figure 81). You will then be able to view the catalogue of prompts that are available to be updated.

If for some reason you cannot connect to the server an error message will be displayed in the login window informing that it was unable to connect and a reason why (see Figure 80).

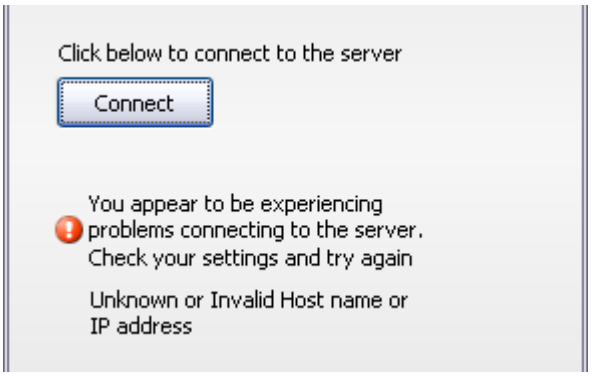


Figure 80 - Login window with connection problem

Please see the i-tiva Recording troubleshooting section for help on resolving problems when connecting to the i-tiva system.

The main i-tiva Recording window has two main sections:

- Available Prompts
- Prompt Information

Figure 81 - i-tiva Recording window

Available Prompts

The Available Prompts section allows you to select the prompt you wish to listen to or update. The prompts shown will reflect your pre-recorded call flow and scripts. To do this, choose the prompt section that contains the prompt you want.

The prompt list will then show all the prompts associated with the section selected.

When you select a prompt, the audio wording and historical information for that prompt is retrieved from the server. You may experience a slight pause while the information is retrieved.

Prompt Information

When all the data has been retrieved, the Prompt Information window will show the relevant details.

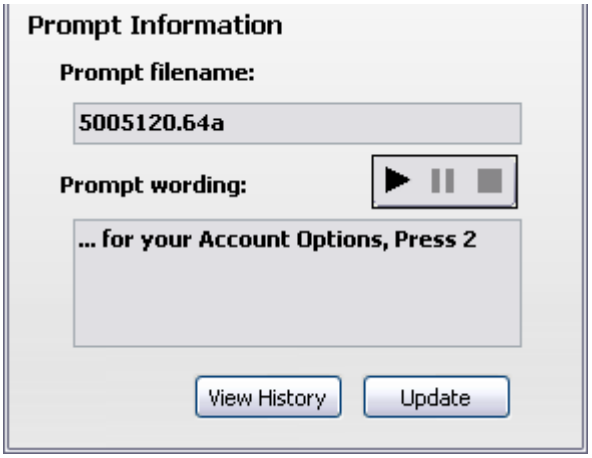


Figure 82 - Prompt Information Window

Once the prompt information has been loaded you will be able to listen to the prompt, view its current wording, see the history of the prompt and update it.

Updating Prompts

To update a prompt you need select the relevant prompt from the section that you wish to update.

Once the prompt and its information have been retrieved from the i-tiva system, click the Update button on the main screen.

The Update Recording window will be displayed (see Figure 83). This window will show the default wording for the prompt (if known) and the current wording of the prompt.

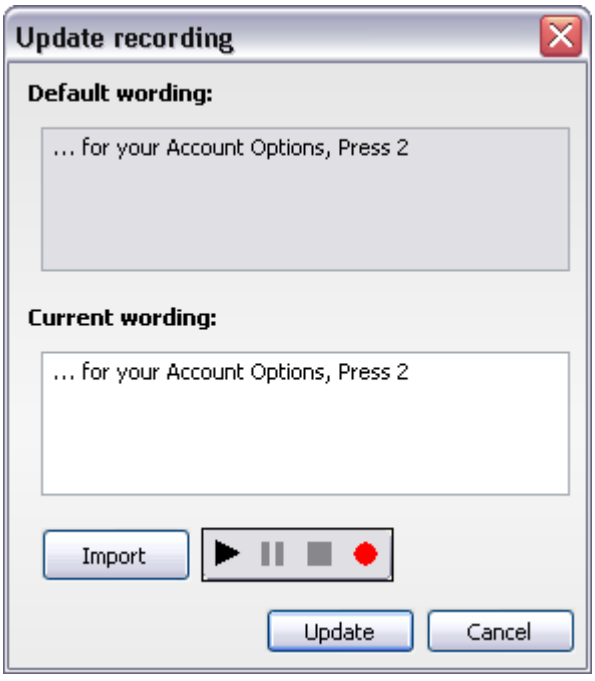


Figure 83 - Update Recording window

Recording a New Prompt

If you wish to record a new prompt using your connected microphone:

- Click the red recording icon on the audio panel.
- Once you click the icon, recording will begin immediately. When the application is recording, the recording button will be disabled (greyed out) and the stop and pause buttons will become active (black) (see Figure 84).

Figure 84 - Client currently recording

Once you have finished recording, click on the *Stop* button. If you would like to review what has just been recorded, click the *Play* button and the audio that was recorded will be played back to you.

You can also update the current wording to reflect the changes to the new prompt. This isn't a requirement, but it helps to identify how the updated recordings are worded. You can do this by deleting the existing wording and typing in the words of the new prompt.

When you are satisfied with the recording and wording, you can click the Update button to load the new recording onto the system. If at any stage you wish to cancel the update, click *Cancel* and you will be taken back to the main window.

When the prompt is loaded, you will be taken back to the main i-tiva Recording window.

Importing New Prompts

If you have an existing pre-recorded audio file that you wish to be used, you can import audio from the Update Recording window. Currently i-tiva Recording will only support the import of .WAV files.

Figure 85 - Updating Recording window - Importing

To Import a .WAV File

Click on the Update button.

Click on *Import* – this will bring up a box allowing you to find the .WAV file you wish to import.

Once you have found the file you wish to use click *Open*. At this point i-tiva Recording will attempt to convert the .WAV file into a format suitable for i-tiva.

When the file has been successfully imported, you will be able to play the imported audio using the Play button on the audio panel. If the file is unable to be converted and filtered, an error message will be displayed informing you of the problem.

As with recording a new prompt, you can update the current wording to reflect the changes to the new prompt.

When you are satisfied with the recording and wording, you can click the Update button to load the new recording onto the system. If at any stage you wish to cancel the update, click Cancel and you will be taken back to the main window.

When the prompt is loaded, you will be taken back to the main i-tiva Recording window.

Restoring Archived Prompts

Every time a prompt is updated using i-tiva Recording, a backup of the previous prompt is made. The system will hold up to 9 previously used prompts; once the system has reached the 9th backup it will start removing the oldest backups from the list.

If a prompt has any history associated with it the *View History* button on the main screen will be enabled. If there is no known history with the selected prompt, the button will be disabled.

To re-activate an archived prompt

From the main i-tiva Recording screen select the prompt you wish to re-activate.

To view the history of the prompt, click the View History button on the main screen.

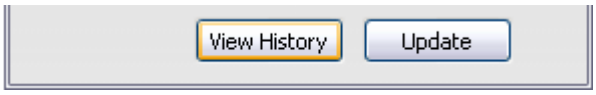


Figure 86 - View History button

This will bring up the History window, which has a list of all the backups made for the selected prompt. From here you can select any backup and view the date recorded and the prompt wording.

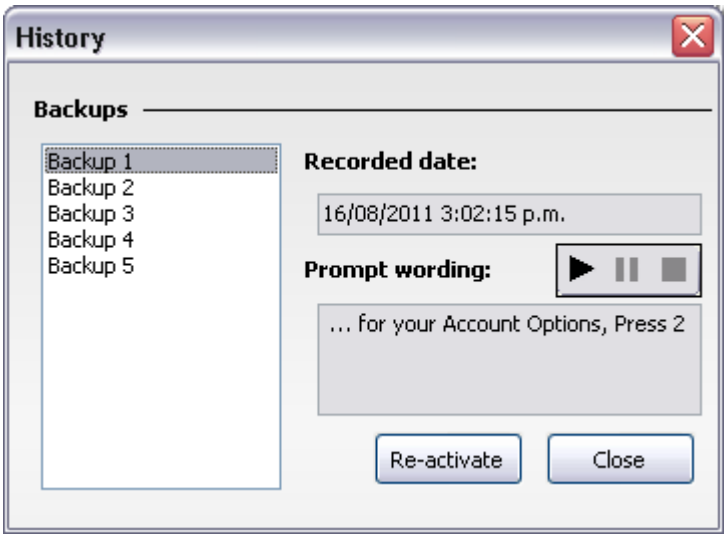


Figure 87 - History window showing backups

Listening to Archived Prompts

You can choose to play the archived prompt by pressing *Play* on the audio panel. This will retrieve the prompt from the server and start to play it.

Reactivating Archived Prompts

If you wish to reactivate an archived prompt, select the appropriate backup from the list that contains the prompt, and then click on the Re-activate button. You will need to confirm you wish to reactivate this prompt. The existing prompt will then be backed up and the archived prompt will be re-introduced into the system as the active prompt.

When the prompt is loaded, you will be taken back to the main i-tiva Recording screen.

Port Visualiser

The Port Visualiser displays all ports and graphically represents what is happening on each port in realtime. The Port Visualiser is a user application only available if logged into the system operating i-tiva and is only available under the original user account i-tiva was installed under. When you login to that account the Port Visualiser should start automatically.

Each box represents a single port, and corresponds with a physical port into the back of the system if using analogue lines or a call channel if using digital lines. This application is not required for i-tiva to operate and can be shutdown if necessary.

Figure 88 - Port Visualiser

Status Description:

Status	Description
	Active Port.
	The port is not available because of alarms or faults detected on the system. If in this state then contact i-tiva Support.
	Port offline, starting or stopping. If the port remains in this state for a long period of time and after a system reboot then contact i-tiva Support.
	CONNECT (inbound) call, ringing or in-progress
	MESSAGE (outbound) call, in-progress, ringing or connected
	Delivering a Voice Mail message
	Listening for digits on a CONNECT or MESSAGE call.
	Call playing a prompt to a User.

A call can have one or many of the events at the same time. In Figure 88 the port is active, there is a MESSAGE call in progress, and a prompt is currently being played to a user i.e. a MESSAGE call is being delivered.

Area Codes and Dialling Rules

Certain regions and Telco companies require that a phone number be dialled a specific way to reach the desired destination. An example is to dial 9 digits for long distance numbers, while only dialling 7 digits for other (local) numbers.

The phone numbers that are received from the LMS often do not perfectly match these requirements. The AreaCodes.txt file is a configuration file to manipulate the phone numbers received from the LMS to match the requirements of the local Telco so that messages successfully reach users.

To Configure the Area Codes and Dialling Rules you must access the machine locally and login as an Administrator.

The AreaCodes.txt file can be found in **C:\itiva\run\profiles\AreaCodes.txt**

Configuration

The rules file is processed 'in order', so that the first rule that matches a given phone number will be used, and all other rules ignored.

The Area Code prefix file should be of the following format:

- Lines starting with ';' are ignored as comments. Please remember to comment all changes made to this file.
- A valid 'rule' line is of the format: <from phone number format>:<to phone number format>.
- The 'X' character matches any digit. The X is then transferred, left to right, to the other side of the manipulation.

Considerations

- The same number of X's is required on each side of the manipulation.
- This process takes place during import, therefore any changes made must be done prior to import.
- When rejecting phone numbers do not use any numbers in the reason for reject (see below).
- Any rejected notices will be sent back in the results file as unsuccessful.

Rejecting Phone Numbers

You can also use the AreaCodes.txt file to reject certain phone numbers. Instead of putting in the final result of the number you want manipulated, you instead place in a reason for reject, in alphabetic letters. For example, if long distance phone calls are made to area codes 704, 556, and 334, and the library has requested that long distance numbers not be called, then the following lines would be added to the AreaCodes.txt file:

```
704XXXXXXX:LONGDIST
556XXXXXXX:LONGDIST
334XXXXXXX:LONGDIST
1704XXXXXXX:LONGDIST
1556XXXXXXX:LONGDIST
1334XXXXXXX:LONGDIST
```

In cases where i-tiva is receiving both 10 digit and 11 digit numbers from the LMS, you must add both rules separately to catch all the possible combinations of phone numbers.

Examples of entries in an AreaCodes.txt File:

```
;Local Numbers that might need 541 removed from the front.
541207XXXX:207XXXX
541223XXXX:223XXXX

;7 digit phone numbers that are valid local numbers, and should be left 'as
;is'.
233XXXX:233XXXX
655XXXX:655XXXX

;Any other 10 digit number needs a 1 prefixed in front.
XXXXXXXXXX:1XXXXXXXXX

;Reject phone numbers that are in the 250 Area Code.
250XXXXXX: REJECTED
1250XXXXXX: REJECTED
```

Dialling With a Prefix

Although TALKINGtech does not recommend dialling through a PBX, it is sometimes necessary for certain installations. Often PBXs require that a number is dialled to get an 'outside' line. i-tiva has the ability to append all phone numbers dialled with a prefix digit, so that you can dial outside of the PBX.

All numbers dialled will be prefixed with this digit. The changes do not apply until the next time the telephony service is restarted. The dlAnalysis file is a very important configuration file to i-tiva; backup the file before proceeding with this change.

To Add a Prefix:

- Open up the File: Go to *Start* > *Run* and type the following command: *<Install Directory>*\ run\profiles\dlAnalysis.ini.

  <Install Directory> is the directory that that main i-tiva directory, including the drive; typically C:\itiva.

- Find the following lines in dlAnalysis.ini. It can be found in the [ACPA.Default] section.

```
; Line Control dial strings
DialSelectTrunk          = ""
DialFeatureInternal      = ""
DialFeatureExternal      = ""
DialPrefix               = ""
DialPostfix              = ""
```

- Modify the 'DialPrefix' configuration to include the prefix digit; e.g. for the prefix '9' the line should be:

  DialPrefix = "9,"

  Please note: the comma (,) is a small pause. Although not required, it is good practice to place it here.

- Save the File. To take effect immediately you must login to the configuration tool and restart the "_i-tiva – Telephony Server". See System Control for instructions on how to reset the Telephony Server.

Remote Connections

Recommended Remote Support

The majority of our remote support connections to our customer base worldwide are via the following two remote connection applications:

- **Microsoft Remote Desktop (RDP):** The recommended solution for support i-tiva Library. Built into Windows Server 2003 and Server 2008 R2 already, when setting up the RDP host we require your Network Admin to allow the RDP to have the ability to map drives on connection for full functionality.

- **Symantec pcAnywhere:** A remote desktop solution that offers full functionality. The library must purchase and install pcAnywhere.

The above connections provide TALKINGtech with full functionality to easily support a library; at times files will need to be transferred during setup, upgrades or support investigations which both these methods allow for.

When using pcAnywhere or Remote Desktop (RDP), firewalls will need to be configured to allow access from incoming TALKINGtech IP(s) and certain ports (depending on applications). Please see the Firewall Access section below for more information.

Alternative Remote Support Methods

Below are some of the not so common connection methods we also support, some of which impose the inability to transfer files which can cause delays in resolving any support requests but in most cases allows sufficient functionally to support an i-tiva server.

- **Citrix**

- **VPN:** We support Windows, CheckPoint, and Cisco VPN applications.

- **VNC:** Can be a good option if you setup map drives and use the Cisco VPN software.

Firewall Access

In most cases setting up the remote connection for an i-tiva server will require the libraries Network Admin to open up the following IP(s) and any ports associated with the remote connection software, e.g. pcAnywhere uses TCP port 5631 and UDP port 5632. This can be changed if the port is already in use on the network.

TALKINGtech will be connecting from one of the following IP addresses:

NZ Office	**UK Office**
203.97.8.42	87.194.66.23
	92.54.141.162

These IPs are part of our static IP addresses relating to our TALKINGtech network, and any remote connection attempts to the i-tiva server will originate from one of the above listed.

Security Considerations

Network Requirements

Each of i-tiva's modes of operation requires different network resources in order to accomplish their task. i-tiva's connection and configuration requirements have been chosen for specific reasons that maintain security and consistency of support. All of these methods, as detailed below, are well defined and are secure by nature.

i-tiva Download Portal

The TALKINGtech support staff will require network access to the TALKINGtech Library Portal at URL: i-tivaDownloads.talkingtech.com. Please ensure that the i-tiva system can communicate with this portal using HTTP.

i-tiva MESSAGE Notice File Transfers

The only data transferred to and from i-tiva is text-file notice data containing the notices for library users. i-tiva never exchanges binary data or executables with the LMS system.

In order for the file exchange to occur, i-tiva needs to be able to read and remove the notice file for dialling, and to also be able to write result files (a.k.a. undelivered notice files) back to the LMS server. No further access to the LMS system is required in most cases, and the allocated File Transfer account can be secured to this level to ensure the strongest level of security.

Report Emailing

If the library has requested MESSAGE Report Emailing, i-tiva will create SMTP (TCP Port 25) connections to the configured mail server. It will use this in order to send i-tiva reports to the configured email recipients. i-tiva itself does not have an SMTP server, and is unable to receive email; i-tiva is therefore not susceptible to email viruses.

SMS File Transfers

If the library is using SMS, i-tiva will use a simple socket TCP / IP connection on Port 2003. This connection requires direct outbound access to a particular IP address and, once the connection is established, i-tiva will upload the messages to deliver to the server, which will then forward them on to the users. If i-tiva is unable to establish this connection then SMS notices will be unable to be delivered.

i-tiva CONNECT

i-tiva requires a real-time data connection to the LMS server in order to query for user items, and to be able to send renew requests for these items. Most i-tiva installations use the library industry standard SIP2 protocol (Selfcheck Interchange Protocol) for these transactions. This isn't the more common H323 SIP protocol (Session Initiation Protocol) used in VoIP applications, but is a protocol that was originally developed by 3M for use with their Selfcheck Library Terminals. i-tiva makes the connection available on a direct TCP port (as specified by the LMS). i-tiva creates one of these connections per telephony port, and maintains these connections while it is running (possibly reconnecting if necessary).

The Library SIP2 protocol is a text-based protocol, with well-defined requests and responses. i-tiva again acts as a client (or request initiator) in this communication. This protocol has no capacity for File Transfers, and is an application-specific protocol. As such, it is immune to virus and intrusion attacks.

i-tiva Express Reporting

The Express Reporting client software (installed separately) will attempt to connect to i-tiva on TCP Port 1433. This connection is required for the Express Reports client to operate correctly. The SQL Server database operating on the i-tiva system requires a user name and password that is only provided by the Express Reports client.

i-tiva Recording

The i-tiva Recording software (installed separately) will attempt to connect to i-tiva on TCP Port 2004. In certain cases the client software and server (i-tiva) will be installed on the same system. Network connectivity between the client computer (with i-tiva Recording installed) via TCP Port 2004 is required.

i-tiva Web Tool

The i-tiva web tool is running on Internet Information Services on TCP Port 80. All pages are displayed in the standard HTTP protocol. Any system running a web browser with network access to i-tiva can access the web tool using TCP Port 80.

Access to i-tiva Configuration and i-tiva User Security requires authentication.

Virus Scanning

i-tiva interactions with outside systems are text-based, and aren't vulnerable to virus transfers. Because of this, and the loading issues that i-tiva is sensitive to, we request that our libraries follow the below guidelines when installing antivirus software on to i-tiva. TALKINGtech will not guarantee normal performance of the i-tiva system while any anti-virus software is installed.

Where anti-virus software is required we recommend you follow these guidelines:

- Exclude the i-tiva directory (typically C:\itiva). During activity this directory can make frequent updates to text and database files. If many virus checks are requested to these files then this could impact the user's experience.

- Do not do a system scan or Antivirus Update on system startup. The additional load to the system, as well as the 'locking' of certain files can interfere with i-tiva startup.

- Only update Antivirus during off-peak hours for the system. The recommend hours are between 1:00am and 3:00am. Often Antivirus updates can force a system to be restarted for the update to take effect.

- Only do full systems scans during off-peak hours. The recommend hours are between 1:00am and 3:00am. Otherwise, the high level of system activity during a virus scan can impact the user's experience.

Personal Firewalls

We recommend i-tiva be completely isolated on the network, bar the required traffic. However, we understand that defence-in-depth methodologies can also place added security on the system itself.
All current systems that are installed using Windows Server 2008 R2 and Windows Server 2003 R2 should have the built in firewall enabled. This firewall is configured when the system is installed and is re-configured according to system changes. If you are not running one of the mentioned operating systems and require a personal firewall placed on the system please email TALKINGtech for recommendation. Since i-tiva uses many network TCP ports the firewall may need to be configured to allow certain network activity.

System Backup

Backing up any production system within an organization is a very important task. It is the responsibility of the library to include i-tiva in their enterprise backup routine.

Here are the general guidelines for backing up the i-tiva system.

Recommended backup locations
The i-tiva root directory can be located on any drive, but is typically located on 'C:' drive in the 'Itiva' directory (C:\Itiva). This document will refer to the i-tiva root directory as *<itivaDir>* as this can vary from system to system.

Files:

Folder	Description
<itivaDir>\Run	System settings and local telephony settings (1 MB)
<itivaDir>\Prompts	All the custom prompts including the recorded patron names (200 MB – 600 MB)

Registry:

The following registry information if using **Server 2008 R2**

Location	Description
HKLM\SOFTWARE\WOW6432Node\Talkingtech	System registry settings.

The following registry information if using **Server 2003 R2**

Location	Description
HKLM\SOFTWARE\Talkingtech	System registry settings.

Databases:

The database files can be backed up connecting the Backup Agent Software to the SQL instance. Please note that simply backing up the database files (MDF) on the i-tiva filesystem will not work.

The following is the list of databases that should be backed up:

Database	Description
ptLibDataDB	Contains i-tiva Configuration.
itivaEvents	Contains all Reporting Data.
ptActivityDB	Databases used for i-tiva Dialling
ptQueueDB	Databases used for i-tiva Dialling
ptCampaignDB	Databases used for i-tiva Dialling
SecurityFrameworkV2	Contains credentials to login to the i-tiva Web Tools.

Notes:

- Since backing up a system can impact system performance, particularly system disk, it is **required** that you only backup the system during off peak hours. The recommended time is between 12am and 5am.
- If using backup agent software that the software does not do any file system scanning on system start-up.
- If using backup agent software that the software does not continuously monitor the file system for file or system changes.

System Recovery:

In the event of a system failure, recovery will be completed by TALKINGtech staff using the above backed up files.

Frequently Asked Questions

The following sections detail the frequently asked questions for i-tiva MESSAGE and i-tiva CONNECT. For each question the problem, diagnosis and solution is provided. In some cases the user may need to contact Support for further information.

Please note that we maintain a list of known issues and that this is available for review from Support should you require. Our Development Team continue to address this list in order to ensure a high quality product.

i-tiva MESSAGE

What happens if i-tiva MESSAGE calls a phone that has an anti-telemarketing device installed?

Problem:
Some users may have anti-telemarketing devices installed onto their household phone lines, with the intention of filtering out automated calls.

Diagnosis:
These systems employ a range of techniques designed to confuse standard computer-generated calls.

Solution:
Because of the variety of these systems and the methods they employ, it is extremely difficult to circumvent these systems. If a user has such a device installed, then the only viable solution is to exclude their account from the notice files provided for voice delivery. For information on how to do this contact your LMS supplier.

Users have been receiving multiple messages on their answering machine. Why does this happen?

Problem:
Multiple messages have been delivered to a user's answering machine.

Ask the user:

- What kind of answering machine does the user have?
- Does the answering machine have any uncharacteristic beeps after the initial record beep?
- Has this problem with this answering machine or service been encountered before?

Diagnosis:
This problem will occur when the i-tiva system detects multiple record beeps while playing the message to the answering machine.

In order for the i-tiva system to first detect an answering service, it must correctly identify a record beep tone associated with known services. Once detected and silence occurs, the system will begin playing the message.

If some sort of record beep tone is detected from this point forward the i-tiva system will become confused and hang-up.

Solution:
Since this answering service is not one that follows typical patterns, the most practical way to solve this problem is to remove the user from the list of users who receive phone notifications. For further information on how to do this please contact Support.

Why was only part of the message left on an answering machine?

Problem:
The user received a message on their answering machine from the library, but the message started half way through.

Ask the user:

- What kind of answering machine or service does the user have?
- Has this occurred on their answering machine before?

Check whether this problem with this answering machine or service has been encountered before.

Diagnosis:
Typically this problem occurs because no record beep was detected when delivering the notification message. Because of this lack of detection, the message will continue to be delivered, but the user's answering machine or service will only start recording from the moment the beep occurred i.e. some way through the partially delivered message (length of message cut-off varies depending on answering machine message length).

The i-tiva system will treat this as an answered call even though it did not detect the record beep and will it not try to send another message.

Solution:
Because of the many different types of record beeps available in the many different types of answering machine or services, careful analysis of the tone that is used is required to solve this problem. At times this may not be viable due to the low number of users using a service.

- For cases where this is minimal, it is may be more practical to remove the users from the list delivered to i-tiva for phone delivery. For further information on how to do this please contact Support.
- For cases where multiple users are experiencing the same problem, and where the answering service appears to be the same, careful analysis from TALKINGtech support staff is required.

Contact Support:
If contacting TALKINGtech is required due to a number of complaints of this type, please provide Support with a description of the problem, and the following information:

- Answering machine service type
- User's phone number
- A time when a test dial for analysis can take place on the user's answering service
- Actions taken so far to analyse the problem

A library user has received multiple messages after answering the call once. Why does this happen?

Problem:
The user has picked up the phone and listened to the message, but has been called back again with the same message.

Ask the user:

- Was there any noise in the background while listening to any of the messages? Such noise might be TV noise, kettle boiling, or Traffic noise.

- How much of the message did the user listen to for each occurrence?

Diagnosis:
This problem tends to occur for two reasons:

1. The user did not listen to enough of the message for the i-tiva system to consider it delivered.

2. A noise in the background triggered the system into a confused state so it just hangs up and re-tries the call at a later point.

Problem 1:
The i-tiva system considers a call complete when it has played approximately 5% of the main body of the message to the user. The main body tends to be the information that the call is about after the introduction i.e. item is overdue, reservation is ready to pick up etc.

If the user does not listen to at least this much of the message, i.e. hangs up during the introduction, then this will be considered an undelivered attempt, and will be tried again.

Solution:
The user must be made aware that they should listen to the majority of the message to ensure they receive the information.

Problem 2:
This tends to occur when background noise confuses the i-tiva system into detecting multiple record beeps and it hangs up assuming the device is something that it cannot handle.

Solution:
The user should be made aware that noise such as TV, kitchen noise, or anything in the background, may cause the system to misinterpret connect status, terminate the call, and call them back. This is a rare occurrence and cannot be readily overcome by a computer system due to these events being detected as the same tone frequency as record beep definitions.

Contact Support:
If the user insists that none of these problems were evident during their calls then TALKINGtech will need to review this query. This user may need to be removed from receiving phone notifications in the future. If contacting TALKINGtech is required, please provide Support with a description of the problem, and the following information:

- Approximate time/date the multiple calls occurred
- User's full name, user ID and phone number
- Any spam filtering software
- Actions that have been taken so far to analyse the problem

Why did a library user not receive any notification about items?

Problem:
The user insists that they did not receive a phone call or notice file about existing items on their record.

Ask the user:
- What is their user name and ID?
- Determine an approximate date that these items should have been phoned. You can do this by checking the user's record to determine when a notice file should have been sent to the i-tiva machine for dialling.

Diagnosis:
The cause of this problem tends to be either the call was answered by another person in the household who did not pass on the message, or the LMS did not provide a notice file to dial from.

Solution:
Use the i-tiva MESSAGE Reports application to find the call records for the user. The report produced will contain information such as: contact date/time, contact result, how much of the message was listened to and whether i-tiva classed the message as delivered. If this report indicates valid delivery TALKINGtech will need to review the query.

Contact Support:
If contacting TALKINGtech is required, please provide Support with a description of the problem and the following information:

- Approximate date user should have been called
- User's full name, user ID and phone number
- Message type that should have been delivered
- Actions taken so far to analyse the problem

A user has received a message where the voice was cutting out. Why?

Problem:
When delivering the message, parts of it seem to skip or break up.

Diagnosis:
This can occur if other processing is happening on the i-tiva machine during delivery of the message.

Solution:

- Try to isolate the time that the call was made to the user and determine if there was any unusual usage of the TALKINGtech servers during this time.

- Pre-emptive measures should be taken to ensure that no high CPU or disk load is enforced onto the i-tiva servers through external influence during the day-to-day running of the system (for example human copying large files, server backups running etc).

Why are library users receiving calls at abnormal hours?

Problem:
A user receives a phone call that is outside of the normal dialling hours for the library. Typically these might be late at night or in the early hours of the morning.

Ask the user:

- What time did the user receive the call?

- Check that this is within the normal slots allocated for dialling by the system (check system configuration).

Diagnosis:
Typically this occurs due to an incorrect setting in the time clock on the i-tiva machine. The system verifies call schedules against the system time, so if this is wrong the machine will deliver messages at the wrong time of the day. The clock can become out of sync for a number of reasons:

- Power surge/outage

- Bios battery may be flat

- Human intervention

Bios batteries tend to last a few years so the likely reason for the clock to be wrong is a power surge of some kind, or human error in changing the date/time.

Solution:
Your library system administrators or IT department should be able to change the clock on the system back to its original time. For further information on how to do this please contact Support.

Why has a library user's name been pronounced incorrectly?

Problem:
On delivery of the message the user's name is pronounced incorrectly.

Diagnosis:
Because the system uses Text to Speech functionality to convert user names to a voice-recognisable sound, there are times when non-standard names can cause this conversion to sound inappropriate.

Solution 1:
Names can be tweaked over time by building a dictionary applicable to the user base, containing the correct pronunciation of names. This involves support staff making text entries into a dictionary file mapping the actual name to a text version of how it sounds.

An example of this might be tweaking the name Andre. This perhaps may be configured in the dictionary as "On Dray".

Ask the user:
What is the correct pronunciation?

Contact Support:
Information to be supplied to Support:

- Description of problem
- The pronunciation of the name explained as closely as possible in text format, for example Andre would be "On Dray"

Solution 2:
Libraries that also employ i-tiva CONNECT have a feature where users can dial into the system and record their own name. This recorded name will then be used instead of Text-to-Speech on CONNECT and MESSAGE allowing for much better pronunciation.

Why are library users getting messages multiple days in a row?

Problem:
The user complains that they have received a message a few days in a row.

Diagnosis:
The i-tiva system dials what is provided by the LMS notice file extraction. This problem is usually due to the LMS determining that a user should receive the message on subsequent days.

Solution:
It first needs to be established that a phone number was actually sent to the i-tiva systems for dialling. If a number was sent more than one day in a row, then the LMS has determined the user should receive multiple calls. If the number was not sent, then TALKINGtech may need to review the query.

If however only one number was sent to the i-tiva system for dialling in the determined problem timeframe, then further investigation will be required.

Ask the user:

- What is the user's user ID and phone number?
- What is the approximate day/time the calls occurred?

Contact Support:
If contacting TALKINGtech is required, please provide Support with a description of the problem and the following information:

- User's user ID and phone number
- Approximate time/date the messages occurred
- Actions taken so far to analyse the problem

Why has a library user received a message even after they have already returned or picked up their items?

Problem:
The user complains a message was left after they had returned or already picked up their items.

Diagnosis:
The i-tiva system only dials what is provided by the LMS notice file extraction. For some setups the dial outs occur the day after this extraction, while others dial out the same day. Because in some instances the notices are delivered the day after, a user may return books during the day, only to get a message that night.

Solution:
In these cases nothing can be done due to the method with which notices are delivered.

i-tiva reports are showing a lot of 'No Dialtone' results. What does this mean?

Problem:
The reports for the i-tiva MESSAGE application show a lot of 'No Dialtone' results, causing a large number of notices/letters to be printed.

Diagnosis:
The i-tiva system reports, either emailed or accessed on the PC, show a large number of 'No Dialtone' results for a particular day's dialling. The result of this is that a large number of messages are undelivered and are sent back to the library for printing, which is normally the first indication that something has gone wrong.

Solution:

- This usually means something is wrong with the telephone line feeding into the dialogic cards at the rear of the i-tiva server. This should be checked first before anything else.

- Test all lines to ensure they have dial tone. This is best accomplished by taking the line out of the dialogic card and putting it into a standard analogue phone handset. If the handset has a valid dial tone then the line should be operating correctly.

- Do this for all lines.

- If a line does not have a dial tone, contact the location's telephony provider to look into the status of the lines.

- If all the lines are working, further investigation will need to be carried out by TALKINGtech.

Contact Support:
If contacting TALKINGtech is required, please provide Support with the following information and a description of the problem:

- Date and time of problem

- Any unusual event surrounding the time the problem occurred (for example, power outage, lightening storms etc)

- Actions taken so far to analyse the problem

i-tiva CONNECT

Why is the system not answering calls?

Problem:
Calls are not being picked up by the i-tiva system.

Diagnosis:
This typically means that something has occurred to prevent the i-tiva CONNECT system from functioning correctly. i-tiva CONNECT is responsible for interacting with the voice technology software that takes/makes the calls and must be running correctly in order for events to occur.

Solution:

- Check the phone lines to ensure that they are working correctly.
- Test all lines to ensure they have dial tone. This is best accomplished by taking the line out of the dialogic card and putting it into a standard analogue phone handset. If the handset has a valid dial tone then the line should be operating correctly.
- Do this for all lines.
- If a line does not have a dial tone, contact the location's telephony provider to look into the status of the lines.
- If all the lines are working, further investigation will need to be carried out by TALKINGtech.
- Rebooting of the software may be required. You can do this yourself by checking the correct modules are running and rebooting if necessary. See Restarting i-tiva for information on how to reboot the system.

Contact Support:
If contacting TALKINGtech is required, please provide Support with a description of the problem and what actions have been taken so far to analyse the problem.

Why are library users unable to login to their accounts?

Problem:
Users have complained that when they attempt to login to their account record they are being denied with messages such as 'Sorry, this transaction cannot be completed at present', or 'Your barcode was incorrect'.

Diagnosis:
If users insist they are entering the correct data from their library card but are getting the message 'Your barcode was incorrect' this will typically mean that there is a constraint on the LMS system that is preventing the logon from occurring.

If there are no constraints then contact your LMS to ensure that they are sending back appropriate message responses to the i-tiva system to allow a logon to occur.

If the message being received is 'Sorry, this transaction cannot be completed at present', then this points to an issue between the i-tiva system and the LMS.

Solution:

- Ensure the user's record is accessible by checking their record and verifying that any possible deny settings are not active (for example, library card has expired).
- Check whether the LMS SIP2 interface with the i-tiva system is working or not, and has been restarted.
- Also ensure that the LMS server IP address has not changed and that no network changes have been made that could affect the connection between the i-tiva system and the LMS.
- If the problem persists further investigation will need to be carried out by TALKINGtech.

Contact Support:
If contacting TALKINGtech is required, please provide Support with a description of the problem and the following information:

- Date and time of problem
- User name and barcode number affected
- Actions taken so far to analyse the problem

Why are library users unable to renew items?

Problem:
Users have complained that they have tried to renew their items but were denied.

Diagnosis:
The i-tiva system does not determine the renewal status of library items. That is determined by the responses returned by the LMS SIP2 interface.

Issues surrounding users being unable to renew are either due to the LMS returning a negative response to the request, or to callers not entering in their correct barcode details.

Solution:

- First ensure that the user has no outstanding issues on their record that would prevent a renewal from occurring. Such issues may be 'Exceeded max fine amount' or 'Item on reserve by someone else' etc.

- If there are no such issues, it may be the case that the user entered their barcode incorrectly, or the LMS returned a denied response. Please check with Support to ensure their SIP2 interface returned a valid response to this request.

- Support staff can do a further analysis of the problem if it remains unresolved. This investigation will involve analysis of log files to determine caller and LMS activity.

Contact Support:
If contacting TALKINGtech is required, please provide Support with a description of the problem and the following information:

- Description of problem

- User name and barcode number this is occurring to

- Approximate date/time the problem occurred

- Actions taken so far to analyse the problem

Why is the wrong renewal date being spoken after a library user has renewed an item?

Problem:
The user indicates that the renewal date spoken back by the system is not what they were expecting, i.e. not what library policy indicates.

Diagnosis:
i-tiva speaks the dates that are returned by SIP2 responses. This means that what is spoken by the i-tiva CONNECT service is directly related to what is returned by the SIP2 response.

Ask the user:
What date was spoken and what was the user expecting?

Solution:

- First it must be verified that the renewal date that occurred on the user's record is in fact the wrong date. Because of various rules that different libraries associate with renewals, the renewal date returned may actually be the correct one. This can be verified on the user's library record.

- If the library item should have been renewed for a different date than that spoken, please consult your LMS to ensure the date provided to the i-tiva system is correct. If the date supplied is correct, the issue needs to be raised with Support for further follow-up.

- Further investigation may need to be undertaken by TALKINGtech support staff.

Contact Support:
If contacting TALKINGtech is required, please provide Support with a description of the problem and the following information:

- User name and barcode

- Approximate time/date that the problem occurred

- Actions taken so far to analyse the problem

Why are library users being directed back to i-tiva when attempting to transfer?

Problem:
Callers press an option to transfer but instead of going to the desired location, are returned back to i-tiva CONNECT.

Diagnosis:
i-tiva requires 'blind transfer' functionality to be present on lines; this should first be checked to ensure it is available and operating correctly. A 'blind transfer' is when the i-tiva system is able to transfer a call to a specified number and releases the call without waiting for it to be answered at the other end.

The problem can also occur when an extension number is incorrect or does not exist, or if the line is busy with no divert configured.

Solution:

- Consult the telephony department internally responsible for the telephone network to ensure no changes have been made, and for further investigation of the problem.

- To check the problem, IT staff can physically plug an analogue phone into the phone line sockets connected to the i-tiva box and attempt blind transfers on this. When testing, please ensure that a 'blind transfer' takes place, in order to mimic the i-tiva system method of doing transfers. If the issue described above is repeated during this test, this is a telephony issue unrelated to i-tiva, and will need to be resolved by IT staff.

- If the blind transfers are working correctly then further investigation will need to be undertaken by TALKINGtech support staff.

Contact Support:
If contacting TALKINGtech is required, please provide Support with a description of the problem and the following information:

- Indication of anything that has changed

- Actions taken so far to analyse the problem

i-tiva Recording

Below are a list of errors that can be displayed when trying to connect to an i-tiva server, with meanings and possible resolutions:

Unknown or Invalid Host name or IP Address

- This is shown when the server address field in the settings is pointing to a non-accessible server on your network. Please check with your network administrator that the server is able to be accessed from your machine.

Connection Refused by Remote Server

- This means the server specified in the settings currently does not have the i-tiva Recording module licensed, the server is not currently running, or the port number specified in the settings is incorrect.

Authentication Failure

- This is shown when either the username or password configured in the settings is not what the server expected to receive.

In these cases, verify the setting information supplied by Support against what is currently configured. If problems persist, verify with your internal network administrator that your machine is able to connect to the i-tiva server.

Appendix A - Known i-tiva Installation Issues

There are multiple issues that happen very rarely during the installation and commissioning process. Below are common problems that have been known to occur and solutions to those problems. If you have a problem that is not on this list then please contact Support.

Issue 1: No ports are showing up in the *Port Visualiser* and no ports appear in the *Port Configuration* of the *Configuration Tool.*

Solution 1: The Dialogic Board is not fitted nor installed properly as per the Installation Instructions.

To check the card is installed properly:

1. Login to i-tiva with the User Account that i-tiva was installed under.

2. Open Windows *Start* > *All Programs* > *Intel Dialogic System Release* > *Configuration Manager - DCM*. Connect to the Local Machine.

3. The Dialogic Card(s) should appear with green 'play' arrows beside them, ensuring that the dialogic cards are installed, detected, and the service is operating correctly.

If the cards do not appear in the *Configuration Manager - DCM*, please refit the cards into the system chassis. If the card was not installed properly during the installation of i-tiva then the steps to resolve solution 2 (below) may also need to be carried out to have the dialogic cards installed and ready to use with i-tiva.

Solution 2: If the Dialogic Board was not detected and installed properly during the installation of i-tiva.

To identify this issue:

- No ports are being displayed in the *Ports Pool* within the *Configuration Tool > General > Port Configuration* page.

- The port visualizer is empty is not displaying any ports.

- The file *<i-tivaInstallDir>|run|profiles|dlSystem.ini* does not contain any Dialogic Board information; specifically the *Boards* section contains no data.

To resolve this issue:

1. Navigate to *<i-tivaInstallDir>|Install* and double click *Setup_dlSystem.exe.* A *test_dlSystem.ini* file will be created within the same directory.

2. Double click the *test_dlSystem.ini* to open in notepad. Check that the file contains dialogic card information; specifically information in the *Boards* section.

3. Rename the *test_dlSystem.ini to dlSystem.ini*.

4. Replace *<i-tivaInstallDir>|run|profiles|dlSystem.ini* with the *dlSystem.ini* in *<i-tivaInstallDir>|Install*. Reboot i-tiva.

5. After the reboot login to *Configuration Tool* and check that the ports have appeared within the *Ports Pool* under *General > Port Configuration*.

Solution 3: The Dialogic Board may not be powered correctly depending on which size slot and which specific power budgeting jumper settings are made.

To identify this issue:

1. The system is using a PCI Express Dialogic Board.

2. In the *Windows Start Menu* right click on *My Computer* and go to *Manage*. Navigate to *Device Manager*. The Dialogic card is detected and installed on system.

3. In the *Windows Start Menu* go to *Intel Dialogic System Release > Configuration Manager - DCM*. Connect to the Local Machine. The Dialogic Card installed on the system does not appear in the list of configured items on the system.

To resolve this issue:
PCI Express Dialogic JCT Media Boards are full length x1 form factor PCI Express boards that require 25W of power. PCI Express slots are defined as x1, x4, x8, x16, ... etc., and refer to maximum transfer speed the slot can provide. Each of these slots provides a certain maximum amount of power by default, e.g. an x1 PCIExpress slot provides a maximum of 10W of power by default. The JCT board must be installed in a slot that can be allocated 25W.

The cause is that the hardware vendor has not implemented power budgeting in their PCIe Slots. If Power Budgeting is not implemented by a vendor's system, the PCI Express board must be plugged into a x4 or higher slot with the power budgeting jumper in position 1-2 (i.e. power budgeting ignored). This is allowed according to PCI Express Card Electromechanical Specification Revision 1.0a or higher because a x4 or greater slot must be able to support a minimum of 25W.

To resolve the issue the pin positions on the Dialogic Board must be modified to match the power management settings of the hardware vendor.

Steps:

1. Turn off all power to the system and disconnect the system's power cords.
2. Remove the computer's cover
3. Ensure that the Dialogic Board is plugged into a x4 PCIe Slot. The board must be plugged into a x4 slot to operate on a system where power budgeting is not adhered to.
4. Change the Jumper Settings (see Figure 89) from 2-3 (Board adheres to power budgeting) to 1-2 (Board Ignores power budgeting values set by the system).
5. Start the computer.

6. In some cases the DCM will not detect the Dialogic Board if the i-tiva services are starting. Open Windows Services and disable *_i-tiva - StartSystem* (or *_TM3 - StartSystem*). To do this open Windows *Start > Run* and enter *services.msc*. Double Click *_i-tiva - StartSystem* and on the *Startup type* select *Disabled*. Select *OK*.
7. Reboot Computer.
8. In the *Windows Start Menu* go to *Intel Dialogic System Release > Configuration Manager - DCM*. Connect to the Local Machine. The Dialogic Card Installed on the system appears in the list of items.
9. Open Windows Services and enable *_i-tiva - StartSystem* (or *_TM3 - StartSystem*). To do this open Windows *Start > Run* and enter *services.msc*. Double Click *_i-tiva - StartSystem* and on the *Startup type* select *Automatic*. Select *OK*.
10. Reboot Computer.
11. Since the i-tiva system may not have been detected the Dialogic board during installation, the steps to resolve solution 2 (above) may need to be followed to include the configuration of the Dialogic Board to i-tiva.

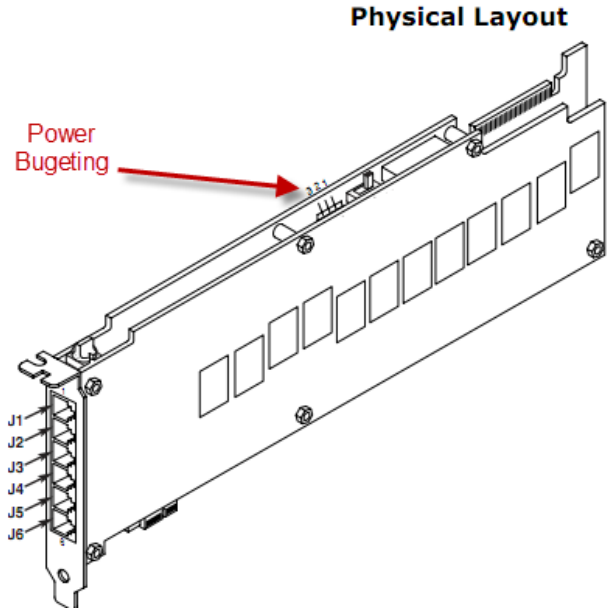


Figure 89 - Power Budgeting Pin on a D/120 JCT-LS Board

Issue 2: After installing i-tiva on the system, the web tools will not open. A permission or security error is displayed within the web browser.

Solution: During installation the correct IIS permissions were not setup for the Webtool. This is most likely due to the identity not being set to *LocalSystem*.

To identify this issue:

1. Open *Internet Information Services (IIS)*. To do this go to *Administrative Tools > Internet Information Services (IIS) Manager*.

2. Expand the Machine Name. Click on the Application Pools.

3. For Server 2008:
    a. Right-click on *DefaultAppPool* and select *Advanced Settings...*
    b. Under *Identity* check that *LocalSystem* is selected.

4. For Server 2003:
    a. Right-click on *DefaultAppPool* and select *Properties*.
    b. Under the *Identity* tab check that *Predefined* is selected and *Local System* is selected in the drop-down box.

To resolve this issue:
Carry out the steps above, but ensure that the *Identity* is set to *LocalSystem*.

Issue 3: The system stops importing / exporting campaigns and/or no ports appear in the port monitor.

Solution 1: The computer has been renamed for logical or administrative purposes.

To identify this issue:

1. Check the computer name. Go to *Start* > right click on the *My Computer* and select *Properties*.

2. Select the *Computer Name* Tab. Note down the *Full Computer Name*.

3. In notepad, open up *<itivaDir>|Run|Profiles|ogGeneral.ini*.

4. At the top of the file there is an attribute called *Machine*. The setting for *Machine* should match the computer name noted in step 2.

To resolve this issue:

1. Contact support.

Solution 2: The site has added the computer to the domain.

1. Go to *Start* > right click on the *My Computer* and select *Properties*.

2. Select the *Computer Name* Tab. The system will appear to be joined to a domain.

To resolve this issue:

1. Remove the system from the domain.
2. Restart System.

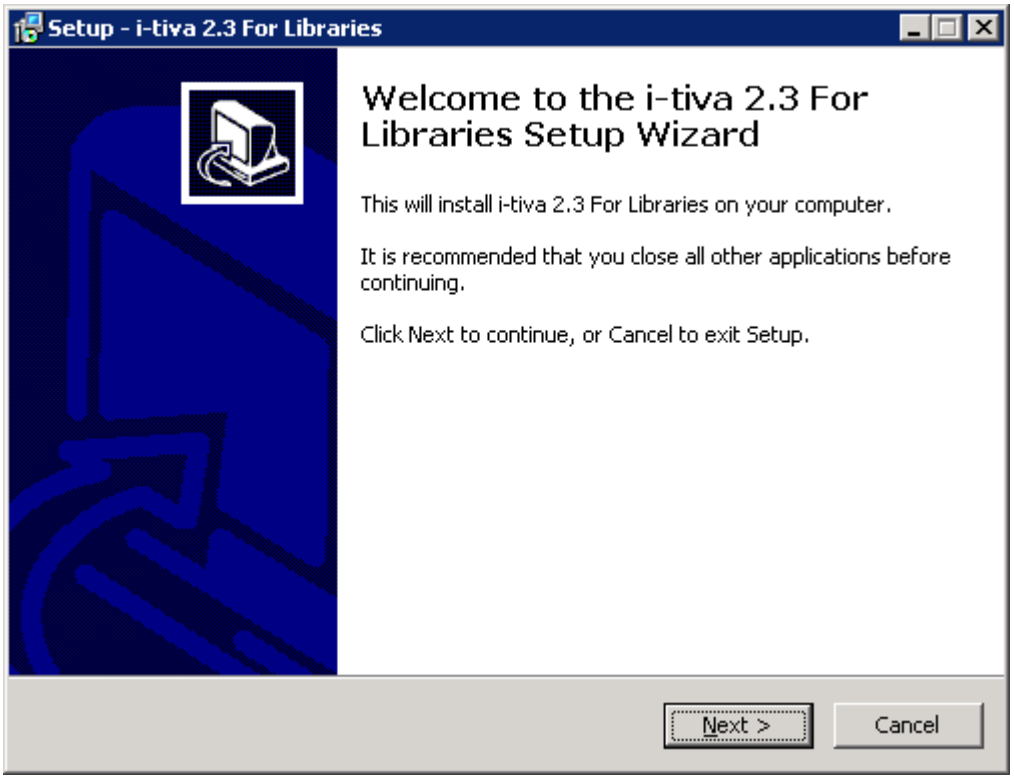
Appendix B – Distributed Database Installation Guide

This is an outline of the steps necessary to install a distributed i-tiva installation where the database is located on a remote machine.

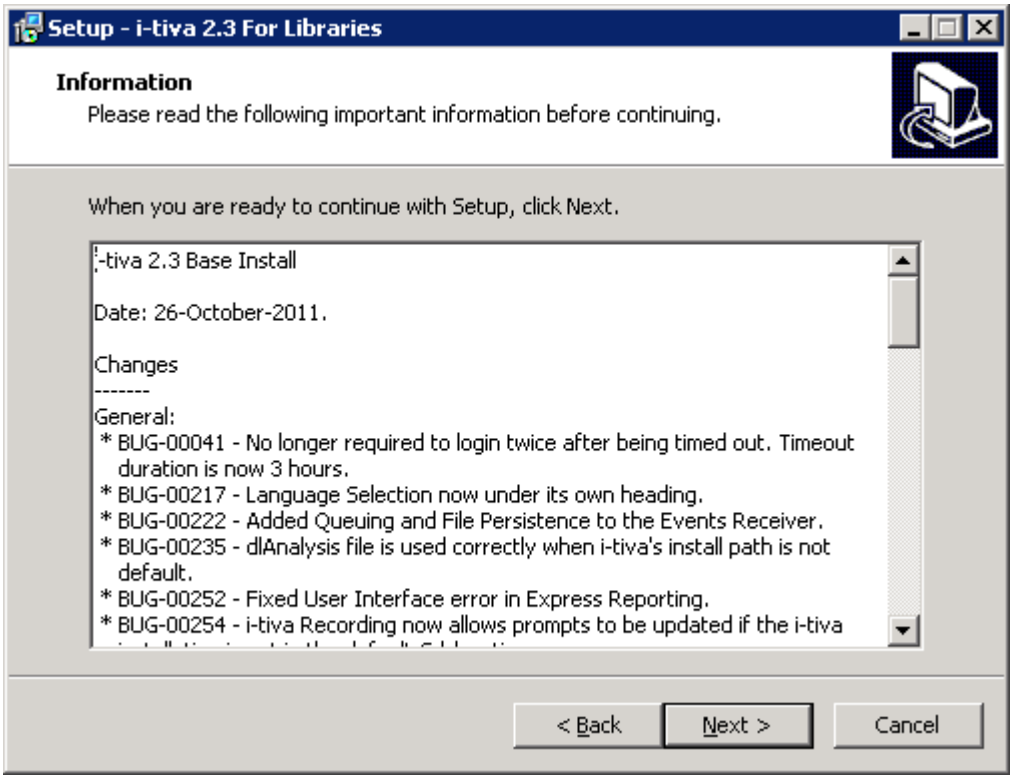
i-tiva can operate on ether Microsoft SQL Server 2005 or 2008, express, standard or enterprise versions, depending on the needs of the of the 3rd party. The only proviso to this is the limitations that Microsoft enforces to SQL Server express version and these need to be taken into account if the installation of i-tiva is expected to create large amounts of data.

This i-tiva installation can be configured to remotely create the databases necessary for operation. Otherwise the DBA can setup the databases necessary for i-tiva. For DBA instructions please see *Remote DBA Installation Notes*.

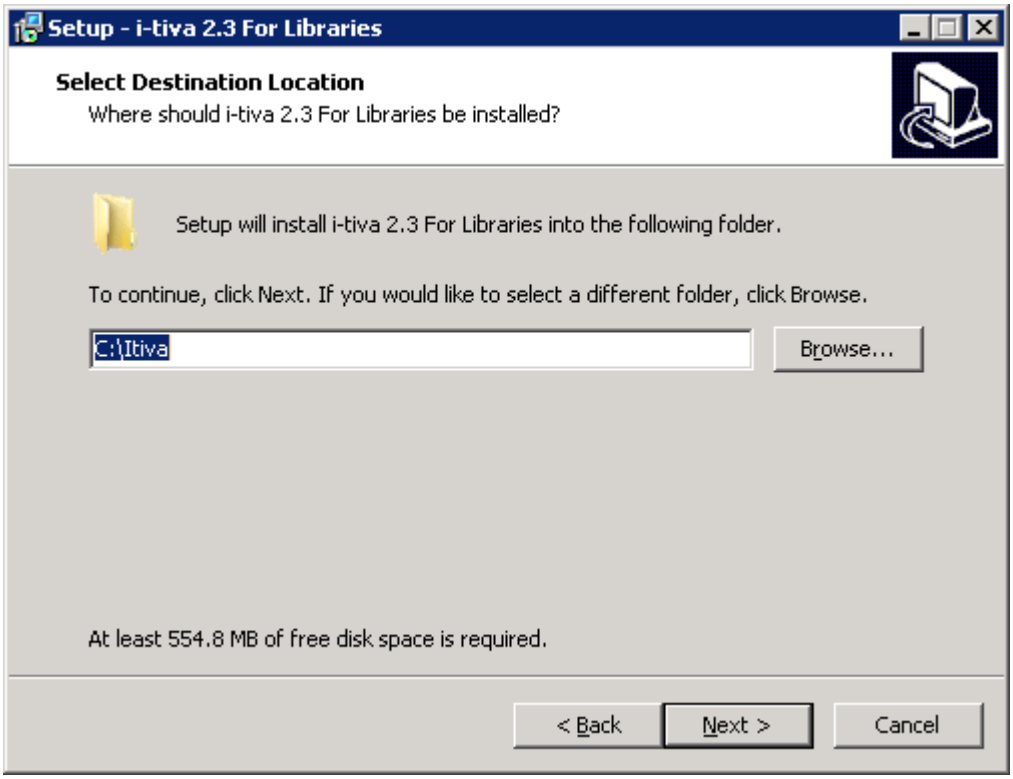
Start Page



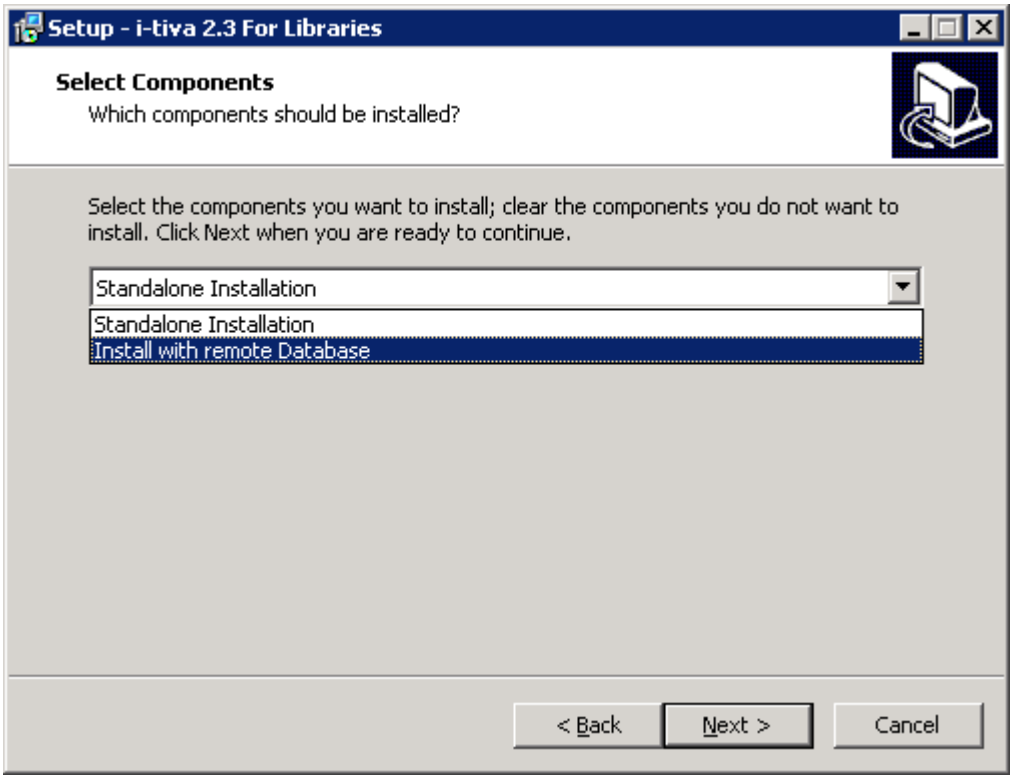
Information Page



Install Destination



Component Selection



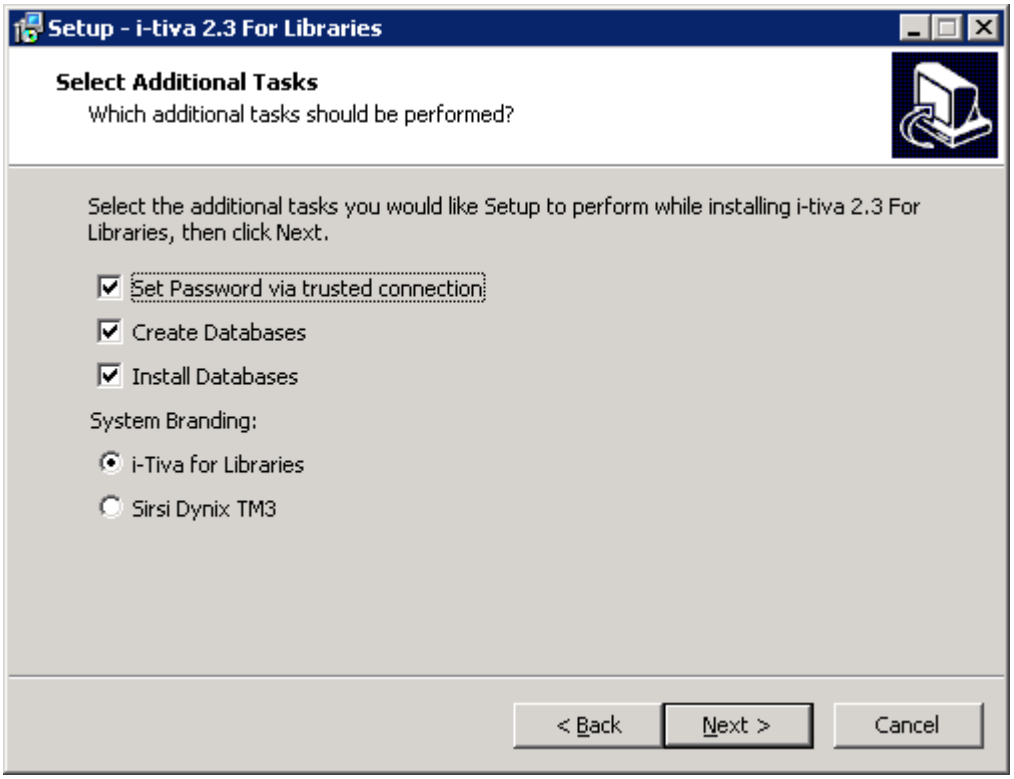
The component selection page lets you select the type of installation.

There are two options on this page:

- **Standalone Installation:** Install everything on the current machine with default settings;
- **Install with remote Database:** Installs i-tiva dialling platform on the target machine and allows customized database installation. This option should be selected for installing the database on a remote machine as it allows specifying the database instance and credentials used to operate the i-tiva system.

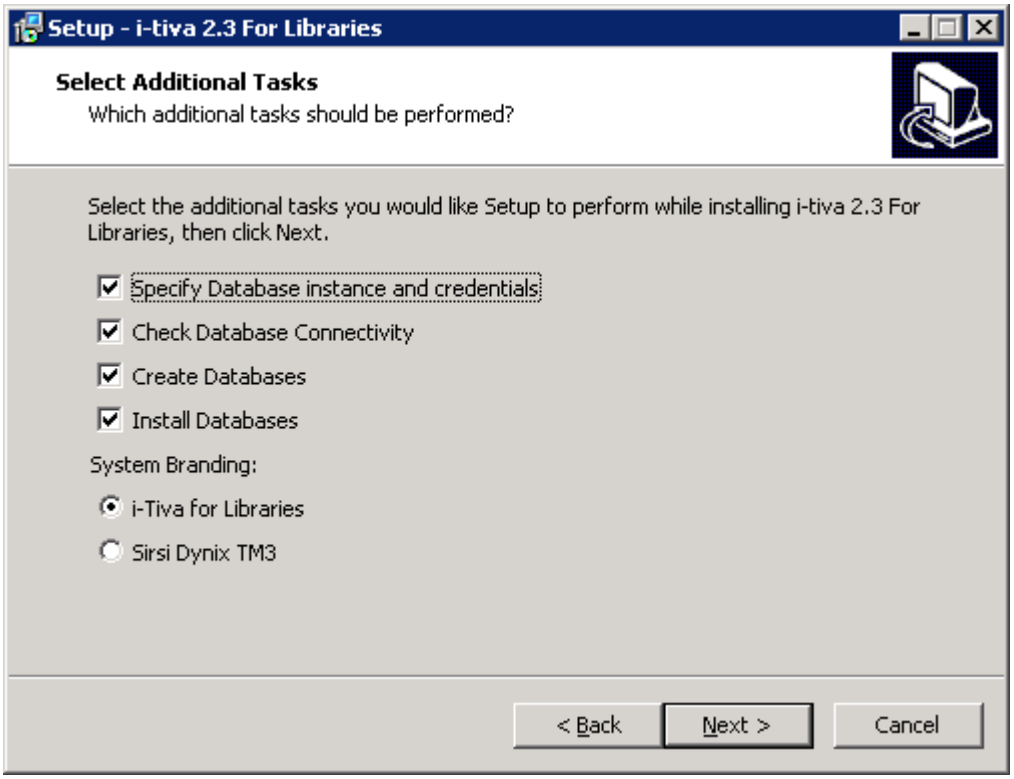
Install Tasks

For Standalone Installation



When installing a standalone system, leave all options selected.

For Install with Remote Database



When installing against a remote database several options are presented:

Specify Database instance and credentials (Recommended)

Prompts for the target database instance and the credentials required to establish connection to it. The installer will generate connection string information that will be used by the i-tiva system to establish connection to the remote database server.

Check Database Connectivity (Recommended)

The connectivity to the database will be checked before the installations process will be allowed to continue. If you are having trouble connecting to the database, please see *Remote DBA Installation Notes* for connection information.

Create Databases

Creates the i-tiva databases. If selected then the i-tiva installation directory selected from the previous page MUST exist on the remote database server and should have a "databases" subdirectory on it, e.g. C:\Itiva\Databases on remote DB server.

This option can be lefted unchecked if the database administrator has created databases and users for i-tiva system to install against (See *Remote DBA Installation Notes*).

Install Databases (Recommended)

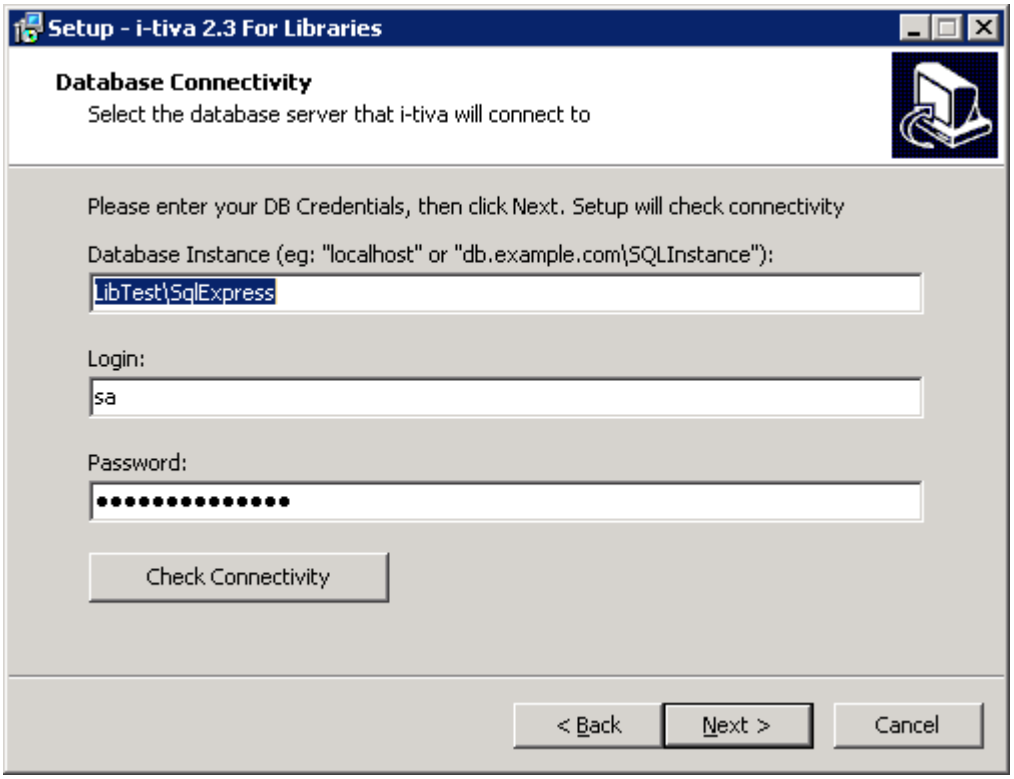
Install the i-tiva databases. This option should remain checked if installing database structures on a remote server. This option may be unchecked if the database administrator has manually created database tables and populated those tables with default data prior to installation.

Possible Installation Scenarios

1. If the databases are not yet created, select all four options.
2. If the databases were already created but the tables are not yet populated, then select:
    - Specify Database instance and credentials.
    - Check Database Connectivity**.**
    - Install Databases.
3. If the databases and their corresponding tables are all configured and populated, then select:
    - Specify Database instance and credentials.
    - Check Database Connectivity**.**

Check Database Connectivity Page

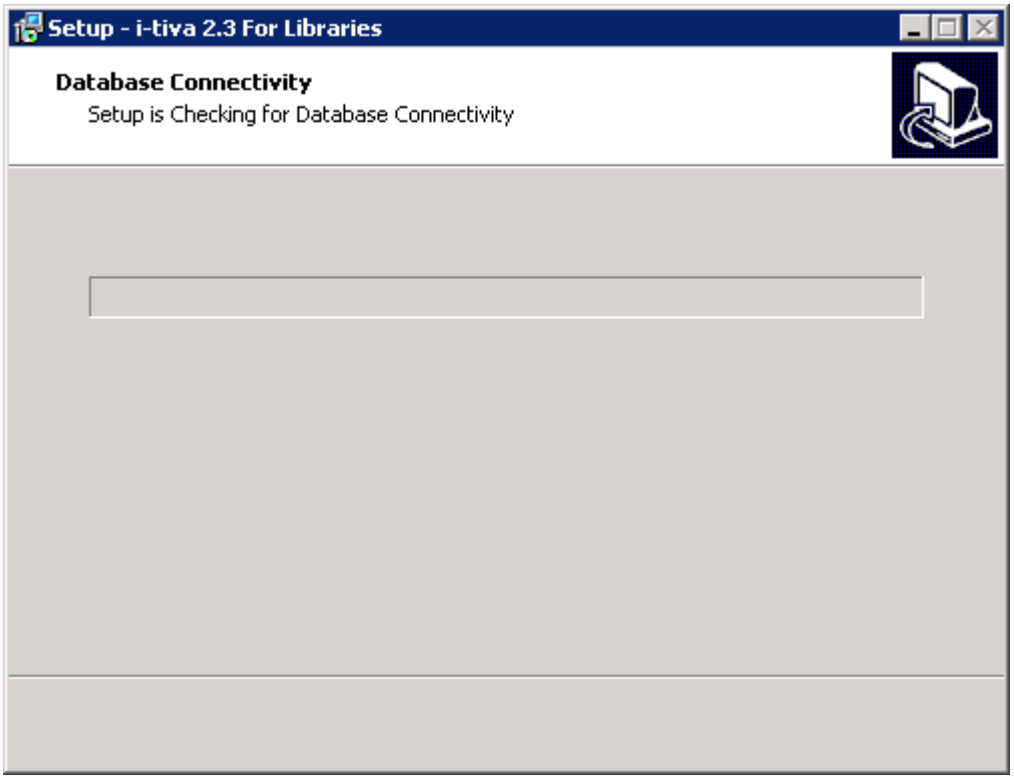
For Install with Remote Database



This page allows the installer to specify the Database Instance, Login and Password for a remote database. This page may also be used to check whether the credentials specified are correct.

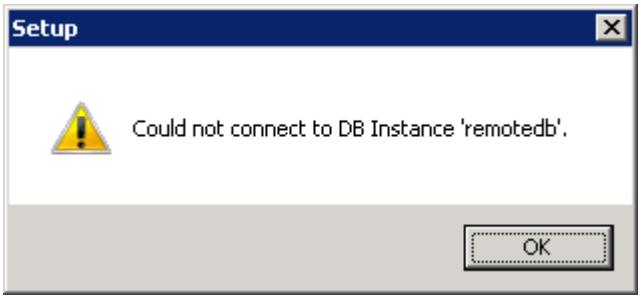
Database Connectivity Page

For Install with Remote Database



This page is shown while setup is attempting to check the credentials and database connectivity.

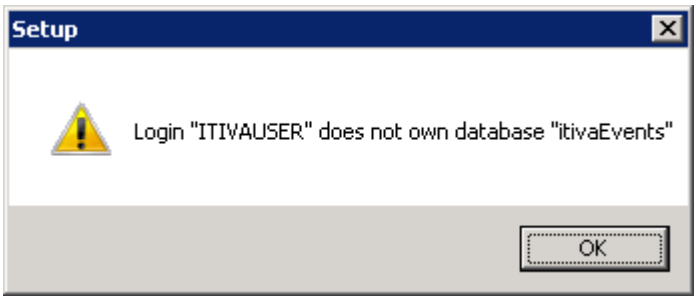
Connection Failure



This dialog will be shown in the following cases:

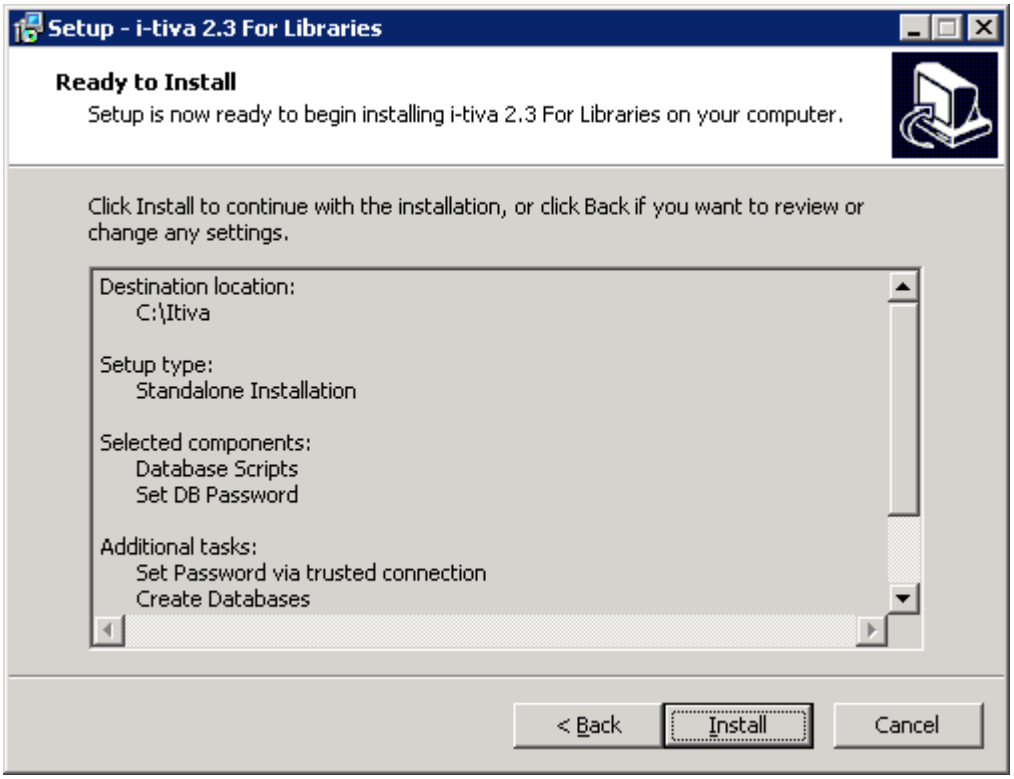
- You have specified the wrong computer or instance name, or;
- You have provided incorrect login or password details.

Insufficient Privileges on Databases



This can occur in the case that you have unselected *Create Databases* in the Install Tasks page and the Database Administrator hasn't given the user database ownership on any one of the i-tiva databases. Please see *Remote DBA Installation Notes* for information about permissions and database ownership.

Install Summary



This is the final page shown before the install proceeds, and is the last chance to change your mind.

Appendix C - Glossary

Word	Synonyms	Description
Account	Login, User.	A user account with credentials to gain access to the system.
Attempt	Phone call	A single phone call made to contact a library user.
Auto Attendant	Auto Forward	The ability for calls to be automatically forwarded to the operator if a user is not selected.
Available Reserve	Available Hold	The library users reserve is available to be collected from the library.
Barcode		Unique ID given to each library item.
Branch	Library Location	A single physical location of a library.
Call Progress Detection		A system that monitors what is happening with the call, i.e. answered, what has answered, completed etc.
Call Transfer	Transfer	Connected a library user to an operator.
Campaign	Work	A grouping of phone calls to be made, usually coming from a single notice file.
Cancel Reserve	Cancel Hold	The library has opted to cancel the hold status that they have on an item.
Client	Patron, Borrower, Customer, Library User	A customer of the library that will be dialling into the system and/or receiving calls from the system.
CONNECT (Product Name)	Inbound Activity	The system used to dial into i-tiva and utilise its inbound functionality.
Consortium Member		A library that is part of a consortium.
Default Gateway		The default gateway indicates which machine/router has to be contacted to communicate with computers on a different subnet to the one i-tiva is connected to. This is only required if i-tiva is required to communicate with computers on a different subnet.
Dialling Time Slot		Configured time slot for outbound dialling.
Due Date	Return Date	The date an item is to be returned to the library.
Email Recipient		Person who receives emailed reports for i-tiva.
Emailed Reports	Message Emailed Reports, Connect Emailed Reports	An emailed report to the i-tiva Administrator(s).
Exclude Date	Holidays, Non-dialling days	Day that i-tiva will not dial due to it being a user configured non-dialling day.
Export		The process of exporting an export file.
Export File	Unsuccessful File, Results File	The file transferred back to the ILS/LMS system from i-tiva.
Express Reporting	Express Reports	Software package that allows the i-tiva administrator to gain information on the use of the system.

File Transfer	Import/Export Process	The process of importing or exporting the import file or the export file.
Firewall		A firewall is a combination hardware and software buffer that many companies or organizations have in place between their internal networks and the Internet. A firewall allows only specific kinds of messages from the Internet to flow in and out of the internal network. This protects the internal network from intruders or hackers who might try to use the Internet to break into those systems.
ILS / LMS	ILS, LMS, Vendor	The Library Management System (LMS) or Integrated Library System (ILS).
Import		The process of importing an import file.
Import File	Notice File	The file transferred to i-tiva for MESSAGE dialling.
Information Menu	Library Opening Hours, Library Locations	A list of options available to a Client to find information about the library.
IP Address	Network Address	If the Method of Connection (Protocol) is TCP/IP (most common), then i-tiva will need to have an IP address allocated so that it can connect to the network.
Item	Book, CD, Movie, etc	An article that can be on loan from the library.
i-tiva Administrator	TALKINGtech, Distributor	Specialised support personnel from within the organisation that provided the library with the i-tiva software.
i-tiva Recording	On Site Recording	Software package that allows the i-tiva Administrator to record their own selected prompts.
i-tiva User	TALKINGtech, Distributor	Someone (usually the Library Administrator) that is using i-tiva to communicate with their own Library Users. The person who will be modifying configuration using provided tools and generating reports.
IVR		Interactive Voice Response.
Library	Council Library, University Library	A single library entity.
Library Administrator		Someone from within the library that is responsible for operating and configuring the i-tiva software.
Library Users	Client, Patron, Borrower, Customer	A customer of the library that will be dialling into the system and / or receiving calls from the system.
Library User Name Recording	Patron Name Recording	A feature that allows a user to record their own name instead of it being played by Text to Speech.
Loop Current Reversal	Reversal on Answer	The electrical current on the phone line reverses providing a positive indication that the library users premises has picked up the phone.
MESSAGE (Product Name)	Outbound Dialling	The part of the i-tiva system used to call a Library User.

Modules		Purchased 'parts' of the i-tiva product such as MESSAGE, CONNECT and SMS.
Multiple Extension Transfer	MET, Transfer Menu	Menu provided to the library user to select an option of where to be transferred.
Network Message	SIT, Intercepted Message	An automated message providing information on the number contacted.
On Loan	Checked Out	The state of an item that was checked out by a library user.
Operator	Staff Member, Librarian	A Library Member who receives a transferred call.
Overdue	Extended Loan	The state of an item that has past its due date.
PBX or PABX		Private Business Exchange. These are telephone exchanges within a company or building.
Phone Line	Line	Telephone line that is plugged into the back of an analogue Dialogic card.
PIN	Password	The security numbers that the library user is required to enter to access their account on CONNECT.
Port	Dialogic Port	Physical port on the Dialogic card.
POTS	PSTN	Plain Old Telephone Service.
PSTN	POTS	Public Service Telephone Network.
Recall		State of an item that has been recalled from a library user.
Renew		An event where a Library User attempts to extend the loan period of an item in their possession.
Reserve	Hold	The library user has placed the item on a waiting list to read in the future.
SMS Messages	Text Messages	Short messages that are typically received on Mobile phones.
Successful Renew		A renew attempt that was successful and a new due date is provided.
Text to Speech	Speech synthesis, Speech Engine, TTS	Translating text to speech.
Unavailable Reserve	Unavailable Hold	The library users reserve is not available to be collected from the library.
Unsuccessful Renew		A renew attempt that was not successful and the Client must return the item at the same due date.
Unsupervised Blind Transfer	Unsupervised Transfer	An Analogue technology used to transfer a Library User to an operator.
Voice Accent	Voice Talent, Accent	Selected accent.

Appendix D - MESSAGE call results

The following are the common call results for i-tiva. The majority of call results are self explanatory, but the following will add more detail around some of the more obscure call results.

Result	Description
Answered	All indicators suggest the call was answered by a person. This result could also be an voice mail system that i-tiva is not configured to detect.
No Answer	Destination phone rang repeatedly for several rings and was not answered within timeout allowed.
Person	Call was answered and positive 'human' interaction occurred by responding to questions by pressing digits. This result occurs when *Login on Outbound* is setup and the user has pressed at least one digit during the phone call.
Voice Machine	Voice Mail delivery. The call appears to be answered by network premises equipment rather than customer premises equipment.
Machine Answered	Voice Mail delivery. Call was answered by customer premises equipment or at least there were no specific hints that the call was answered by any network service and then an Voice Mail box was detected.
Busy	The destination phone was in use and the network provided a busy signal.
Fax	The call was answered what appeared to be a fax machine.
Intercepted	The Telco provided signaling to suggest that the destination number is no longer in service. With analogue lines this was provided through the detection of a SIT tone (also known as a tri-tone). With digital lines the Telco informed i-tiva that the destination number cannot be reached. Patrons that consistently get this result should have their phone numbers checked to ensure that they are accurate.
Rejected	Call was answered by any means, but was disconnected almost immediately. Can also be caused on mobile phones by hitting 'Reject Call' button, or more likely connection was dropped due to poor coverage or low battery straight after the connection occurs. A disconnect event (i.e hangup) within 3 to 4 seconds after connect will cause this.
No Dialtone	This indicates that the expected dialtone was not detected within expected time after going off hook. It is not uncommon for this call result to occur at very low levels, especially if the

	system is dialing through a PBX system. If greater than 5% of all call results are 'No Dialtone' then is recommended that you check the status of your lines to ensure that they are functioning correctly. If you have verified that the lines are functioning correctly and yet you continue to receive 5% or more then please log a support request.
Line Unplugged	This result occurs if a dialtone was NOT detected and also there was no other signaling to suggest that the line was plugged in. Typically this call result will not occur unless there is a line problem. If i-tiva is reporting this issue then please do the following to correct the issue: • Check that your lines are plugged securely into the Dialogic Card in the back of the i-tiva system. Often this result can happen if a line has been knocked and is no longer fitting securely into the phone jacks. • If you continue to receive this call result please check the status of your phones lines to ensure that they are functioning correctly. If the status of your lines is okay, please log a support request.
NOT Ringing!	This result code has several known causes, but it is almost always related to the detection of the ringback tone or the way in which it cycles or repeats. When a number is dialed, the ringback is expected to begin within a short while. The first ring may be a little shorter or longer than usual but then it must repeat at a regular interval with 2 full ring tones. If this cycle is interrupted or changes in any way or the tone itself deviates significantly in frequency or quality then a 'Not Ringing' result can be returned. This can be caused by the call being forwarded to a voice mail platform or cell phone carrier that has a slightly different ring. It is not uncommon to have a small number of these call results to be included in the reporting data. If more than 5% of all call results are of this type please contact support.
Network Message	A voice message was detected, but then no answer supervision signaling was detected within a timeout. This is typically the Telco providing a message to the user, such as the phone number has been disconnected or that we dialled the number incorrectly. Numbers that have been disconnected, changed or become unlisted, especially at some exchanges, can also cause this but this is not universally supported.
Switched Off	Typically a result for mobile phones only and either network message or signaling hints suggest that the phone was switched off. This condition most often appears as a generic network message result as it's not always possible to distinguish the message from other messages.
System Ready	This result should not occur as it suggests that the system was otherwise ready to

	make a call but the telephony system was not available. This is most likely caused by the telephony software failing unexpectedly, or can occur sometimes during a system restart where the software was ready but was then told to abandon the attempt before actually dialing it. If you are experiencing this result for the first time then the next action is to restart i-tiva. Should you continue to receive this call result or you receive this call result frequently then please log a support request. You should not receive this result at all.
Trunk Rejected	This is almost exclusively an ISDN related result code and usually indicates that either a trunk was not available to make the call on or perhaps that the destination CO was unable to establish a call. If more than 5% of all call results are of this type please contact support