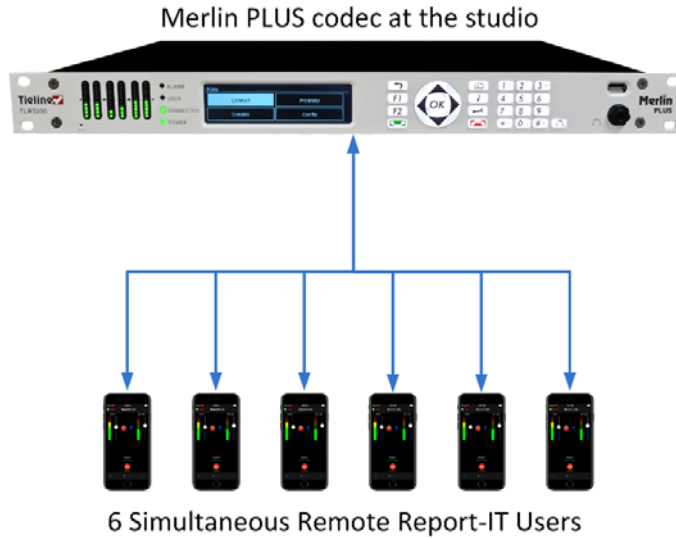# Connecting 6 Simultaneous Report-IT Connections with Merlin PLUS

A Merlin PLUS codec at the studio can connect six simultaneous bidirectional mono peer-to-peer audio stream connections with smartphones using the Report-IT app (or with codecs).

To get started with Report-IT and connect to a Merlin PLUS codec at the studio you need to:

1. Purchase and then register a Report-IT Enterprise domain and account with Tieline.
2. Configure Report-IT Enterprise user accounts with the free TieServer Console app for iPhone or Android, or the TieServer Console PC/Mac version (requires additional subscription).
3. Install Merlin PLUS at the studio with a static IP address and configure a 6 x Mono Peer-to-Peer Program.

Step 1: Getting started with Report-IT: Register Your Purchase and Configure User Accounts

Report-IT is a smartphone codec app which allows you to stream live audio over IP from remotely located users to a codec at the studio. To get up and running:

1. Purchase Report-IT Enterprise from Tieline or your favorite dealer.
2. Register your purchase with Tieline at www.tieline.com/register
3. Tieline will supply administrator domain login credentials to allow configuration of Report-IT user accounts using the TieServer Console.
4. Add codecs and user accounts, configure a default codec (even if adding only one codec to the domain) and authorize users to connect to preferred codecs.
5. Renew Report-IT Enterprise annually and register the Report-IT Enterprise renewal with Tieline at www.tieline.com/register.

1. Purchase Report-IT Enterprise from Tieline or your favorite dealer

2. Register your purchase at www.tieline.com/register

3. Tieline will supply Admin login credentials for the TieServer Console

4. Add user accounts in Report-IT Enterprise with the TieServer Console

5. Renew Report-IT Enterprise annually and re-register at www.tieline.com/register

Step 2: Configure Report-IT User Accounts with the TieServer Console

When you purchase Report-IT Enterprise Tieline will create an administrator account and domain name for your network on TieServer. This domain is used to configure all Report-IT user accounts. Tieline will also supply a username and password for the administrator account. Use these credentials to log in to the administrator account and configure user accounts via the following options:

- The free TieServer Console application for Android devices (https://itunes.apple.com/us/app/tieserver-console/id604794105?ls=1&mt=8).
- The free TieServer Console application for iOS devices (https://play.google.com/store/apps/details?id=com.tieline.reportitee.admin) .
- The PC/Mac TieServer Console (requires an additional annual subscription www.tieserver.com).

iOS TieServer Console App

Android TieServer Console App

PC/Mac TieServer Console

Report-IT Enterprise Administrators can configure:

1. Default domain settings for codec, sharing and connection settings. These apply when no individual user account settings have been configured.
2. Individual user account settings: These settings override the 'global' default domain settings when enabled.
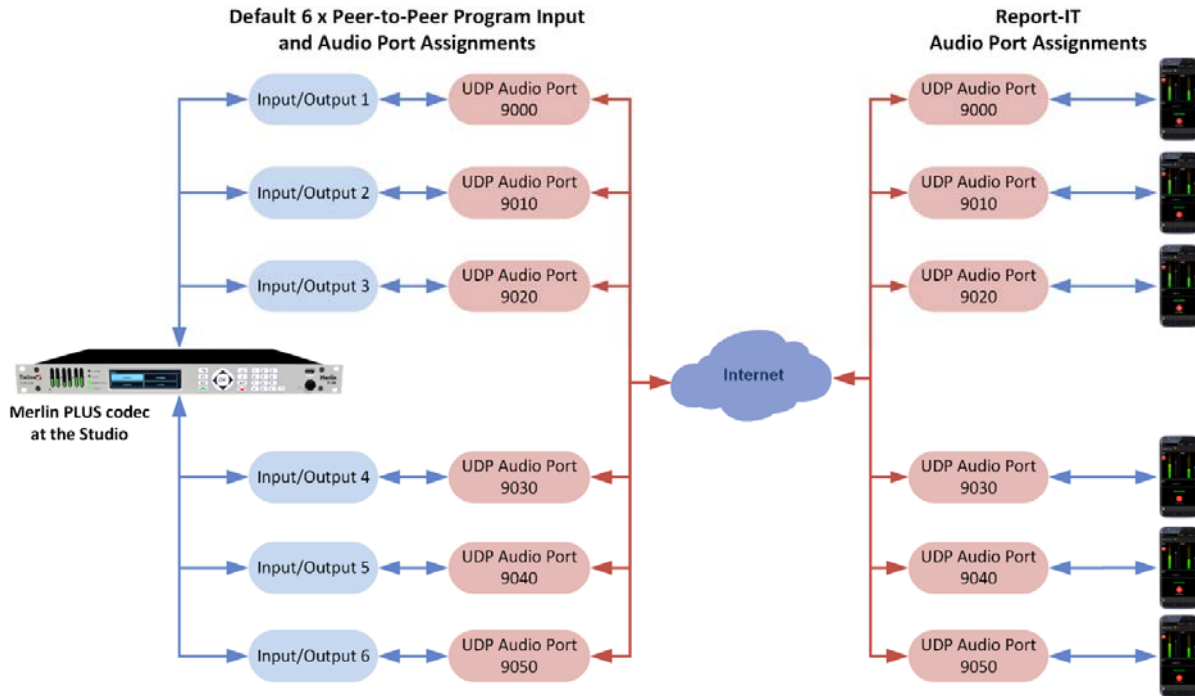
Download the latest user manual for the TieServer Console from www.tieline.com by selecting "Support" and then select "TieServer Console" under "Software Tools". This will provide all the instructions required to configure Report-IT Enterprise for the first time and:

1. Add the codecs to which users will connect using Report-IT.
2. Add all sharing servers to which users will share files using Report-IT.
3. Configure the Default Domain (user connection) settings for Report-IT.
4. Configure individual user settings with the correct port assignments for connecting to the correct input and outputs on the Merlin PLUS (see example diagram in next section).

The user manual for each version of the TieServer Console describes how to configure multiple user accounts to connect to the same codec at the studio in the section titled "**Connecting Multiple Smartphones to One Codec.**"

Step 3: Create a 6 x Mono Peer-to-Peer Program in Merlin PLUS

The following image displays the default audio ports settings to use when creating a 6 x Mono Peer-to-Peer Program. Report-IT user accounts configured using the TieServer Console, with corresponding audio port settings, will route audio to specific inputs and outputs of the Merlin PLUS codec as shown. Note: these ports can be changed according to your requirements but ensure the codec and Report-IT audio stream ports always correspond to create successful connections.

When you set up the Merlin PLUS for the first time for multiple incoming and outgoing IP audio streams to Report-IT, you will need to:

1. **Install the Merlin PLUS at the studio:**
    a. Contact your Internet Service Provider and organize a dedicated high-speed broadband connection at the studio for your codec with a public static IP address.
    b. If you are connecting a single codec to a router without a firewall you can enter the public IP address, Subnet Mask and Gateway directly into the codec and your work is done. Note: your Telco should be able to provide this information.
    c. Alternatively, if you are connected to a router with a firewall, configure Network Address Translation (NAT) in your router. NAT is performed between the public internet and your private Local Area Network (LAN) by your router. Your remote codec sends IP data packets to the studio router's public static IP address and the router performs NAT, which forwards these data packets to the private IP address allocated by the router to your codec. As part of this process we recommended you:
        i. Connect to your router using a web-browser.
        ii. Configure it to allocate a static private IP address for each codec.

d.   Ensure your router and firewall is configured with the relevant TCP and UDP IP ports open to allow data traffic between your codec and Report-IT users. Default Tieline ports are:
   i.   Session Port for all streams: 9002.
   ii. Audio Port Stream 1: 9000
   iii. Audio Port Stream 2: 9010
   iv. Audio Port Stream 3: 9020
   v.   Audio Port Stream 4: 9030
   vi. Audio Port Stream 5: 9040
   vii. Audio Port Stream 6: 9050
   viii. Include ports 80 and 8080 to allow connecting the Toolbox Web-GUI for codec configuration.
e.   Ensure you keep an accurate record of all IP address and port settings at the studio for future reference. This will also assist greatly if you need to call Tieline support for assistance.

For more detailed network setup information visit Tieline website at www.tieline.com and select "Support". Network setup info is available for download on each product's support page.

2.   **Configure a 6 x Mono Peer-to-Peer program in Merlin PLUS:**
   a.   Launch the HTML Toolbox Web-GUI for the Merlin PLUS from a PC using a web-browser and change the default password.
   b.   Open the HTML5 Toolbox Web-GUI and click **Connect** in the **Menu Bar**, then select **Program Manager** to launch **the Program Manager** panel.
   c.   Click the **New Program** button to commence configuration.
   d.   Select 6 x Mono Peer-to-Peer in the drop-down program template selector.
   e.   Complete configuration of all six connections.
   f.   Remember to load the program and enable the **Lock Loaded User Program** function in the **Options** panel of the Toolbox Web-GUI to lock it in the codec and ensure it won't be unloaded accidentally by the first incoming call.

With Report-IT the studio codec will receive all calls, so you will only need to configure 'answering' connections for each incoming call from up to 6 different devices. Visit www.tieline.com and select "Support" and then select Merlin PLUS to view the user manual for more details about configuring Merlin PLUS for 6 incoming Report-IT connections. The relevant section is titled **"Configure 6 x Mono Peer-to-Peer Answering Programs."** Tech notes for configuring network setup are also available.