

Tait P25 CSSI Trunking Installation

Notes for C-Soft version 7.500

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This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>). This product includes cryptographic software written by Eric Young (ey@cryptsoft.com). This product includes cryptographic software written by Tim Hudson (tjh@cryptsoft.com).

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1.0 Introduction

This document describes the Tait P25 feature set and contains the installation notes for configuring Tait P25 Trunking interface to C-Soft 7.500 using the CSSI Interface option. Additional notes and/or revisions to this note will be made available as additional P25 systems (including those from other infrastructure manufacturers) are made available for testing and documentation.

This feature is a value added option to C-Soft 7.500 and higher. It requires available lines on your existing C-Soft license to support.

2.0 Hardware Requirements

- ADHB-4 US (P/N F.01U.149.779)
- ADHB-4 EU (P/N F.01U.149.783)
- ADHB-4 UK (P/N F.01U.149.781)

3.0 Software Requirements

- C-Soft version 7.500 or later
- ADHB-4 v3.1 or later
- Windows 7 (32-bit or 64-bit)
- Windows 10

4.0 Supported Features

The C-Soft CSSI interface supports the following feature set for both Phase 1 and Phase 2 systems utilizing Tait P25 Trunking. Systems from other infrastructure manufacturers may exhibit different performance using this interface.

- Supports connection to P25 Core Network RFSS Controller
 - Each RFSS connection is configured with a Name, IP Address, and System Type.
- Supports up to 24 P25 CSSI lines
 - P25 CSSI line connects to a specific RFSS controller. The line is configured with a connection, type (group or individual), and a list of affiliated groups or individuals.
 - Each line can be configured to accept audio from one or several talkgroups on a System List associated to the line.
- Send and Receive Group Calls
 - Group Call is sent by selecting the corresponding frequency button and then pressing either InPTT or Main PTT button.
 - Displays ANI and/or Alias of incoming calls.
- Send and Receive Individual Calls
 - Individual Call is sent by selecting or entering a user ID from the keypad module and then pressing Private PTT.
 - Displays ANI and/or Alias of incoming calls.
- Send Annunciations
 - Send audio from .wav file on a P25-CSSI line using the Annunciation button.
- Crosspatching
 - Can crosspatch audio from P25-CSSI line to another P25-CSSI line or Telex type line (IP-224/223) in C-Soft.
- Receive Emergency Notifications
 - Supports receiving both Emergency Calls and Emergency Alerts.
- Receive Short Messages
 - Short Messages can be received from an individual.
- Send Radio Enable/Disable Commands
 - Radio Enable/Disable commands is sent by selecting a user from a keypad control and then clicking either the Radio Enable or the Radio Disable button.
 - Radio Enable/Disable commands can only be sent on lines configured for individual operation.
- Send Radio Check Command
 - Radio Check command is sent by selecting a user from the Keypad control module and then clicking the Radio Check button.
 - Radio Check command can only be sent on lines configured for individual operation.
- Status query and update

- Query the status of the remote radio by selecting its unit ID from the Keypad control and then clicking Status Request button.
- Audio encryption
 - Console supports end-to-end P25 encryption. User can use a key loader from Motorola or Tait to load encryption keys on the console.
- System Call
 - Programing a Group ID with a value of 65535 (decimal) allows the dispatcher to make a system wide call.
- Announcement Call
 - Announcement group is supported by setting up one or several announcement groups in the Tait TN94000 Fleet Manager setting.
- Remote monitor
 - Radio Monitor command is sent by selecting a user from the Keypad control and then clicking the Remote Monitor button.
- Indication of parallel console transmissions
 - Parallel Consoles ID's can be configured in C-Soft Designer by going to Edit | Setup Global Parameters | Local Consoles and entering the subscriber IDs of the parallel consoles in the Direct IP Console Subscriber IDs field.
 - Calls initiated from parallel dispatch consoles will display the 'T' icon on the receiving line's Select button.
- Cross muting of parallel consoles
 - Calls from parallel consoles can be automatically muted by enabling the **Crossmute direct IP console subscriber IDs** field in Edit | Setup Global Parameters | Local Consoles.
 - When this option is enabled, calls initiated from parallel dispatch consoles will display the 'XT' icon on the receiving line's Select button.

5.0 System Setup

To set up the P25 interface, both the Tait TN9400 and C-Soft Designer must be configured for P25 operation.

IMPORTANT: Please read this documentation completely before starting. Information needed to install consoles onto the RFSS requires information from both systems to simplify the installation steps.

Information needed to complete the install includes:

(Use the tables below to help build the system)

RFSS Number	RFSS ID (Hex)	RFSS System ID (Hex)	RFSS WACN ID (Hex)	RFSS IP Address
1				
2				
3				

Console Number	RFSS Number (from the table above)	Console Name	Console ID (Hex)	Console RFSS ID (Hex)	Console System ID (Hex)	Console WACN ID (Hex)	Console PC IP Address
1							
2							
3							
4							
5							
6							
7							
8							

5.1 Tait TN9400 RFSS Setup

1. Go to the **webpage configuration for the Tait TN9400 RFSS Manager**.
2. Expand the **interface menu** and click the **External RFSSs** menu item.
The External RFSSs listings page displays connections currently configured on the system.

The screenshot shows the Tait TN9400 RFSS Manager web interface. The browser address bar indicates the URL is <https://172.19.2.6/WebUI/node.html#externalDevices>. The page title is "TN9400 RFSS Manager". The network status is "Online" and the database status is "Online".

The left sidebar contains a navigation menu with the following items:

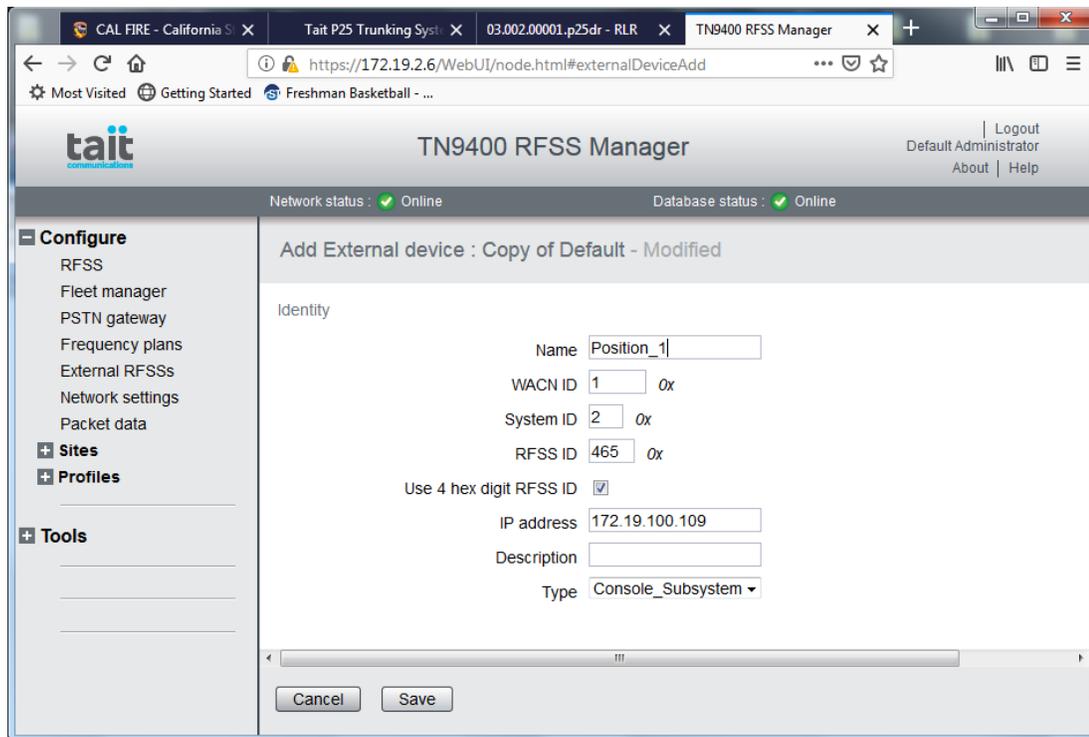
- Configure
 - RFSS
 - Fleet manager
 - PSTN gateway
 - Frequency plans
 - External RFSSs
 - Network settings
 - Packet data
- Sites
- Profiles
- Tools

The main content area is titled "External RFSSs" and displays a table with the following data:

Name	IP Address	WACN ID	System ID	RFSS ID	Type
Bosch_Console	172.19.100.145	1	2	1111	Console_Subsystem
Console_1113	172.19.100.116	1	2	1113	Console_Subsystem
Hieu_Console	172.19.100.12	1	2	1112	Console_Subsystem
Console_1	172.19.100.139	1	2	2001	Console_Subsystem
Console_2	172.19.100.49	1	2	2002	Console_Subsystem
Console_3	172.19.100.108	1	2	2003	Console_Subsystem
Console_4	172.19.100.160	1	2	2004	Console_Subsystem
Console_5	172.19.100.81	1	2	2005	Console_Subsystem
Console_6	172.19.100.111	1	2	2006	Console_Subsystem
Console_7	172.19.100.72	1	2	2007	Console_Subsystem
Console_8	172.19.100.20	1	2	2008	Console_Subsystem
Console_9	172.19.100.141	1	2	2009	Console_Subsystem
Console_10	172.19.66.10	1	2	2010	Console_Subsystem
Console_11	172.19.66.11	1	2	2011	Console_Subsystem
Console_12	172.19.66.12	1	2	2012	Console_Subsystem
Console_13	172.19.66.13	1	2	2013	Console_Subsystem
Console_14	172.19.66.14	1	2	2014	Console_Subsystem
Console_15	172.19.100.57	1	2	2015	Console_Subsystem
lap	172.19.100.16	1	2	1114	RFSS
Console_16	172.19.100.119	1	2	2016	Console_Subsystem
Console_17	172.19.100.166	1	2	2017	Console_Subsystem

At the bottom of the table, there are buttons for "View", "Add", "Edit", "Copy", and "Delete", along with a "Filter..." input field. The page shows 1 result and a "Results per page" dropdown set to 40.

- To add a connection, click the Add button at the bottom of the page.
The Add External device window appears.



The screenshot shows the Tait TN9400 RFSS Manager web interface. The browser address bar shows the URL <https://172.19.2.6/WebUI/node.html#externalDeviceAdd>. The page title is "TN9400 RFSS Manager". The network status is "Online" and the database status is "Online". The left sidebar contains a navigation menu with sections: "Configure" (RFSS, Fleet manager, PSTN gateway, Frequency plans, External RFSSs, Network settings, Packet data), "Sites", "Profiles", and "Tools". The main content area is titled "Add External device : Copy of Default - Modified". Under the "Identity" section, the following fields are visible: Name (text input: "Position_1"), WACN ID (text input: "1" with "0x" suffix), System ID (text input: "2" with "0x" suffix), RFSS ID (text input: "465" with "0x" suffix), Use 4 hex digit RFSS ID (checkbox: checked), IP address (text input: "172.19.100.109"), Description (text input: empty), and Type (dropdown menu: "Console_Subsystem"). At the bottom of the form are "Cancel" and "Save" buttons.

- Enter a **name for the new P25 Connection** into the Name field.
- Enter the **WACN ID, System ID, and RFSS ID**. This should match the same information applied in the C-Soft Designer.
- Select the **Use 4 hex digit RFSS ID** option.
- Enter the **IP Address** of the actual PC position that will run C-Soft into the IP address field.
- From the Type drop down menu, select **Console Subsystem**.

9. Click the **Save** button.

The new console position displays in the External RFSS listing.

The screenshot shows the TN9400 RFSS Manager web interface. The browser address bar displays `https://172.19.2.6/WebUI/node.html#externalDevices`. The page title is "TN9400 RFSS Manager". The network status is "Online" and the database status is "Updated". The left navigation menu includes "Configure", "Sites", "Profiles", and "Tools". The "External RFSSs" table is displayed with the following data:

Name	IP Address	WACN ID	System ID	RFSS ID
file_console	172.19.100.12	1	2	1112
Console_1	172.19.100.139	1	2	2001
Console_2	172.19.100.49	1	2	2002
Console_3	172.19.100.108	1	2	2003
Console_4	172.19.100.160	1	2	2004
Console_5	172.19.100.81	1	2	2005
Console_6	172.19.100.111	1	2	2006
Console_7	172.19.100.72	1	2	2007
Console_8	172.19.100.20	1	2	2008
Console_9	172.19.100.141	1	2	2009
Console_10	172.19.66.10	1	2	2010
Console_11	172.19.66.11	1	2	2011
Console_12	172.19.66.12	1	2	2012
Console_13	172.19.66.13	1	2	2013
Console_14	172.19.66.14	1	2	2014
Console_15	172.19.100.57	1	2	2015
lap	172.19.100.16	1	2	1114
Console_16	172.19.100.119	1	2	2016
Console_17	172.19.100.166	1	2	2017
Position_1	172.19.100.109	1	2	1125

At the bottom of the table, there are buttons for "View", "Add", "Edit", "Copy", and "Delete". The "Results per page" is set to 40.

10. From the Configure Menu in the left navigation, select **RFSS**.

The screenshot shows the RFSS configuration page. The left navigation menu is visible, and the "RFSS" option is selected. The configuration details are as follows:

- Trunked Analog Gateway (TNAS509) 0
- Voice Recorder (TNAS506) 1
- Channels (TNAS519) 2

Below these settings, there is a "Profiles" section with the following configuration:

- Logging profile Default
- NIF profile Default

At the bottom of the configuration page, there are three buttons: "Back", "Edit", and "Apply".

11. Click the **Apply** button to save changes.

5.2 Tait TN9400 Fleet Manager Setup

1. Go to the **webpage configuration** for the Tait TN9400 Fleet Manager.
2. Select the **Location** button.

The screenshot shows the Tait TN9400 Fleet Manager web interface. The browser address bar displays <https://172.19.2.8/r/r/>. The page title is "TN9400 Fleet Manager" with the user "Administrator (Administrator)". A sidebar on the left contains navigation links for Subscribers, Groups, Locations, Packet Data, and Tools. The main content area features an "Add a New Location" button and a table of existing locations.

Location ID	Location Alias	IP Address	Location Type	Vocoder Mode Capability	Subscribers Full Rate	Subscribers Half Rate
000FE.03.002.00001.p25dr	FleetManager	172.19.2.8	RLR	None	0	0
00001.03.002.00001.p25dr	Site-1	172.19.2.10	Site	Full Rate/Half Rate	1	0
1111.002.00001.p25dr	Steve 1st Console	172.19.100.145	Console	Full Rate/Half Rate	0	0
1112.002.00001.p25dr	Hieu 1st console	172.19.100.12	Console	Full Rate/Half Rate	0	0
1113.002.00001.p25dr	Steve 2nd console	172.19.100.116	Console	Full Rate/Half Rate	0	0
2001.002.00001.p25dr	Console_1	172.19.100.139	Console	Full Rate/Half Rate	0	0
2002.002.00001.p25dr	Console_2	172.19.100.49	Console	Full Rate/Half Rate	0	0
2003.002.00001.p25dr	Console_3	172.19.100.108	Console	Full Rate/Half Rate	0	0
2004.002.00001.p25dr	Console_4	172.19.100.160	Console	Full Rate/Half Rate	0	0
2005.002.00001.p25dr	Console_5	172.19.100.81	Console	Full Rate/Half Rate	0	0
2006.002.00001.p25dr	Console_6	172.19.100.111	Console	Full Rate/Half Rate	0	0
2007.002.00001.p25dr	Console_7	172.19.100.72	Console	Full Rate/Half Rate	0	0
2008.002.00001.p25dr	Console_8	172.19.100.20	Console	Full Rate/Half Rate	0	0
2009.002.00001.p25dr	Console_9	172.19.100.141	Console	Full Rate/Half Rate	0	0
1114.002.00001.p25dr	lap	172.19.100.16	Console	Full Rate/Half Rate	0	0
2015.002.00001.p25dr	Console 15	172.19.100.57	Console	Full Rate/Half Rate	0	0
2016.002.00001.p25dr	Console 16	172.19.100.119	Console	Full Rate/Half Rate	0	0
2017.002.00001.p25dr	Console 17	172.19.100.166	Console	Full Rate/Half Rate	0	0

3. Select the **Add a New Location** button.
The Add a New Location window appears.

The screenshot shows the "Add a New Location" form in the Tait TN9400 Fleet Manager web interface. The form fields are as follows:

- Location ID*: 0465.001.00002.p25dr
- Location Alias*: Position_1
- Location Type*: Console
- Vocoder Mode Capability*: Full Rate/Half Rate
- Automatic Supplementary Service Registration*:
- PTT Control If No Listeners*: Queue Call If No Listeners

Buttons for "Add" and "Reset" are visible at the bottom of the form. Below the form, the "Locations" table is partially visible, showing the "Location ID", "Location Alias", and "IP Address" columns.

4. Enter the **Location ID**.
This should match the same information supplied by C-Soft Designer.

5. In the Location Alias field, enter the **system name**.
6. From the Location Type drop down menu, select **Console**.
7. From the Vocoder Mode Capability drop down menu, select **Full Rate/Half Rate**.
8. Click the **Add button**.

The new Position 1 Location ID is now added to the list.

The screenshot shows the Tait P25 Trunking System web interface. The main heading is "TN9400 Fleet Manager" with the user "Administrator (Administrator)" and a "Log out" link. Below the heading is an "Add a New Location" button. The main content area is titled "Locations" and shows a table of existing locations. The table has the following columns: Location ID, Location Alias, IP Address, Location Type, Vocoder Mode Capability, Subscribers Native, and Phase 2 Capable. A new location has been added at the top of the table, with a Location ID of 1112.002.00001.p25dr, Location Alias of "Hieu 1st console", IP Address of 172.19.100.12, Location Type of Console, Vocoder Mode Capability of Full Rate/Half Rate, Subscribers Native of 1, and Phase 2 Capable of yes. The table also includes an "Edit" button for each row.

Location ID	Location Alias	IP Address	Location Type	Vocoder Mode Capability	Subscribers Native	Phase 2 Capable
1112.002.00001.p25dr	Hieu 1st console	172.19.100.12	Console	Full Rate/Half Rate	1	yes
2015.002.00001.p25dr	Console 15	172.19.100.57	Console	Full Rate/Half Rate	1	yes
2016.002.00001.p25dr	Console 16	172.19.100.119	Console	Full Rate/Half Rate	1	yes
2017.002.00001.p25dr	Console 17	172.19.100.166	Console	Full Rate/Half Rate	1	yes
2001.002.00001.p25dr	Console_1	172.19.100.139	Console	Full Rate/Half Rate	1	yes
2002.002.00001.p25dr	Console_2	172.19.100.49	Console	Full Rate/Half Rate	1	yes
2003.002.00001.p25dr	Console_3	172.19.100.108	Console	Full Rate/Half Rate	1	yes
2004.002.00001.p25dr	Console_4	172.19.100.160	Console	Full Rate/Half Rate	1	yes
2005.002.00001.p25dr	Console_5	172.19.100.81	Console	Full Rate/Half Rate	1	yes
2006.002.00001.p25dr	Console_6	172.19.100.111	Console	Full Rate/Half Rate	1	yes
2007.002.00001.p25dr	Console_7	172.19.100.72	Console	Full Rate/Half Rate	1	yes
2008.002.00001.p25dr	Console_8	172.19.100.20	Console	Full Rate/Half Rate	1	yes
2009.002.00001.p25dr	Console_9	172.19.100.141	Console	Full Rate/Half Rate	1	yes
000PE.03.002.00001.p25dr	FleetManager	172.19.2.8	RLR	None	0	no
1114.002.00001.p25dr	lap	172.19.100.16	Console	Full Rate/Half Rate	1	yes
0465.002.00001.p25dr	position_1	172.19.100.109	Console	Full Rate/Half Rate	0	yes
00001.03.002.00001.p25dr	Site-1	172.19.2.10	site	Full Rate/Half Rate	0	yes
1111.002.00001.p25dr	Steve 1st Console	172.19.100.145	Console	Full Rate/Half Rate	1	yes
1113.002.00001.p25dr	Steve 2nd console	172.19.100.116	Console	Full Rate/Half Rate	1	yes

9. From the Subscribers left navigation, select **Home RFSS Map**.

TN9400 Fleet Manager
Administrator (Administrator) | [Change password](#) | [Log out](#)
[About](#) | [Help](#)

Add New Subscriber Range to Home RFSS Mapping

Subscriber Range to Home RFSS Mappings

Showing all 18. Show per page

System ID	WACN ID	RFSS ID	Unit ID Min	Unit ID Max	Alias		
002 (2)	00001 (1)	1111	0003E8	0003E9	Console_1111_IDs	Edit	Delete
002 (2)	00001 (1)	2017	017000	017001	Console_17 ID Range	Edit	Delete
002 (2)	00001 (1)	2016	016000	016001	Console_16 ID Range	Edit	Delete
002 (2)	00001 (1)	2015	015000	015001	Console_15 ID Range	Edit	Delete
002 (2)	00001 (1)	1114	0003FE	0003FF	lap	Edit	Delete
002 (2)	00001 (1)	2009	090000	090001	Console_9 ID Range	Edit	Delete
002 (2)	00001 (1)	2008	080000	080001	Console_8 ID Range	Edit	Delete
002 (2)	00001 (1)	2007	070000	070001	Console_7 ID Range	Edit	Delete
002 (2)	00001 (1)	2006	060000	060001	Console_6 ID Range	Edit	Delete
002 (2)	00001 (1)	2005	050000	050001	Console_5 ID Range	Edit	Delete
002 (2)	00001 (1)	2004	040000	040001	Console_4 ID Range	Edit	Delete
002 (2)	00001 (1)	2003	030000	030001	Console_3 ID Range	Edit	Delete
002 (2)	00001 (1)	2002	020000	020001	Console_2 ID Range	Edit	Delete
002 (2)	00001 (1)	2001	010000	010001	Console_1 ID Range	Edit	Delete
002 (2)	00001 (1)	1113	0003F0	0003F1	Console3_1113_IDs	Edit	Delete
002 (2)	00001 (1)	1112	0003EA	0003EF	Console2_1112_IDs	Edit	Delete
00001 (1)	03	000001	0003E7	TN9400 SU's	Edit	Delete	

- Click the **Add New Subscriber Range to Home RFSS Mapping** button.
The Editing Subscriber Home window appears.

The screenshot shows a web browser window with the URL <https://172.19.2.8/rlr/>. The page title is "TN9400 Fleet Manager" and the user is logged in as "Administrator (Administrator)". The page content is titled "Editing Subscriber Home" and contains a form with the following fields:

Edit Subscriber Home			
System ID*: Decimal	<input type="text" value="2"/>	Hex:	<input type="text" value="002"/>
WACN ID*: Decimal	<input type="text" value="1"/>	Hex:	<input type="text" value="00001"/>
RFSS ID*: Decimal	<input type="text" value="1125"/>	Hex:	<input type="text" value="0465"/>
Unit ID Min*: Decimal	<input type="text" value="1025"/>	Hex:	<input type="text" value="000401"/>
Unit ID Max*: Decimal	<input type="text" value="1026"/>	Hex:	<input type="text" value="000402"/>
Alias*:	<input type="text" value="Position_1"/>		
<input type="button" value="Save"/> <input type="button" value="Reset"/>			

Below the form is a "Return to List" button.

- In the appropriate fields, enter the **System ID**, **WACN ID**, **RFSS ID**, **Unit ID Min**, and **Unit ID Max**.
- In the Alias field, enter the **Console Alias name**.
- Click the **Save** button to add.

5.3 C-Soft Designer Setup

1. Open **C-Soft Designer**.
2. From the Edit menu, select **Setup P25**, and then **CSSI**.

The screenshot shows the 'Global P25 CSSI Parameters' dialog box. It contains the following fields and options:

- Console ID:** 1025 Dec, 401 Hex
- Console RFSS ID:** 1125 Dec, 465 Hex
- Console System ID:** 2 Dec, 2 Hex
- Console WACN ID:** 1 Dec, 1 Hex
- Console Location ID:** 0465.002.00001.p25dr
- Console SUID:** 00001.002.000401.p25dr
- Enable Heartbeats**
 - Heartbeat Rate: 60 Sec
 - Missed heartbeats: 5 # of allowed
- Receive FNE supplementary data by SUs registered with group**
- Console Tx Priority:** 16 Dec
- Local Consoles** button
- OK** and **Cancel** buttons

3. In the Console ID field, enter the **ID of the console**.
The ID should match the user name used in “Tait TN9400 RFSS Setup” on page 8. Each console must have a unique ID.
4. Click the **OK** button.
5. From the Edit menu, select **Setup Per Line Parameters**.
The Per Line Parameters window appears.

- For the desired line, from the Line Type drop down menu, select **P25 CSSI**.

Line Number	Line Type	Line Name	Rx Multicast Address	Rx Port	Tx Multicast Address	Tx Port	Base Radio IP	TTL	Packet Delay
1	P25-CSSI	Group 1	225.8.11.81	1054	225.8.11.81	1254	0.0.0.0	6	10
2	P25-CSSI	Group 2	225.8.11.81	1055	225.8.11.81	1255	0.0.0.0	6	10
3	P25-CSSI	Group 3	225.8.11.81	1056	225.8.11.81	1256	0.0.0.0	6	10
4	P25-CSSI	Group 4	225.8.11.81	1057	225.8.11.81	1257	0.0.0.0	6	10
5	P25-CSSI	Group 5	225.8.11.81	1058	225.8.11.81	1258	0.0.0.0	6	10
6	P25-CSSI	Group 6	225.8.11.81	1059	225.8.11.81	1259	0.0.0.0	6	10
7	P25-CSSI	Group 7	225.8.11.81	1060	225.8.11.81	1260	0.0.0.0	6	10
8	P25-CSSI	Private	225.8.11.81	1061	225.8.11.81	1261	0.0.0.0	6	10
9	Disabled	Line 9	225.8.11.81	1062	225.8.11.81	1262	0.0.0.0	6	10
10	Disabled	Line 10	225.8.11.81	1063	225.8.11.81	1263	0.0.0.0	6	10

- Assign a **Name**, a **unique multicast address**, and **port numbers**.
This information is used for parallel console cross patching and window updates. (Emergency and Call Queue).
 - Click the **Signal Setup** button.
The Per Line P25 Setup window appears.
 - From the Call Type drop down menu, select **Group** or **Private Call**.
 - Select the **Encryption Profile** to use.
 - In the Call Number field, enter the **Group** or **Individual/Private ID number**.
 - Enter the **RFSS ID** using the Dec or Hex fields.
 - Enter the **System ID** using the Dec or Hex fields.
 - Enter the **WACN ID** using the Dec or Hex fields
 - Enter the **RFSS IP Address** fields.
 - Click the **OK** button to close.
- NOTE:** Repeat these steps for each CSSI Line.
- From the Edit Menu, select Setup Global Parameters.

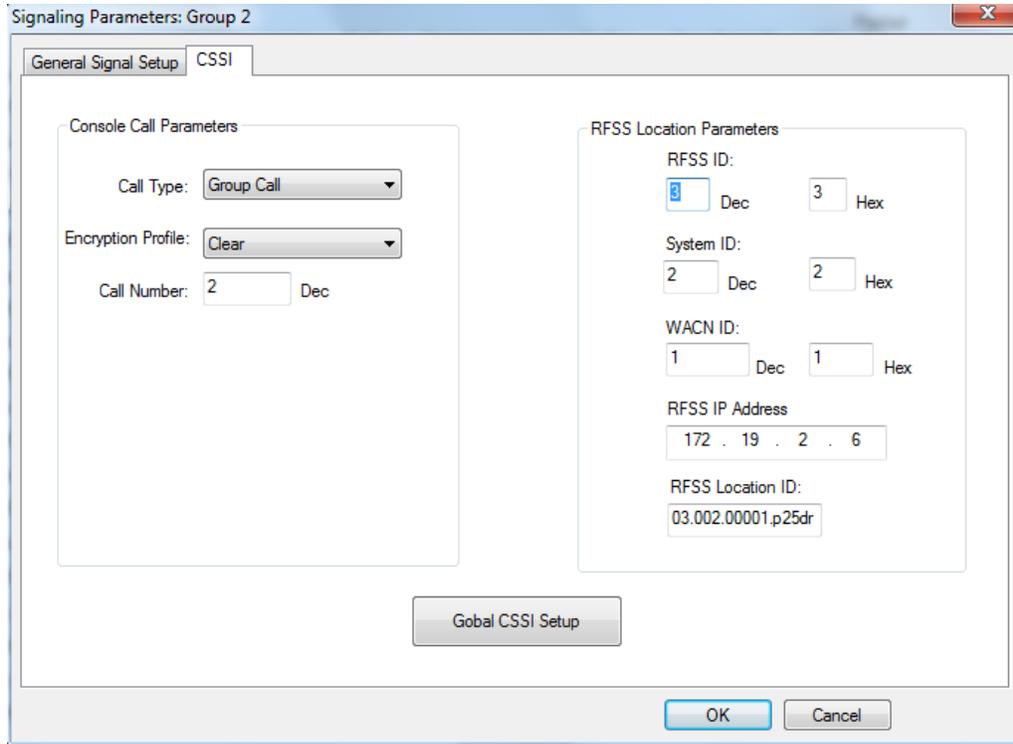


FIGURE 1. Group Call View, Dedicated Talkgroup

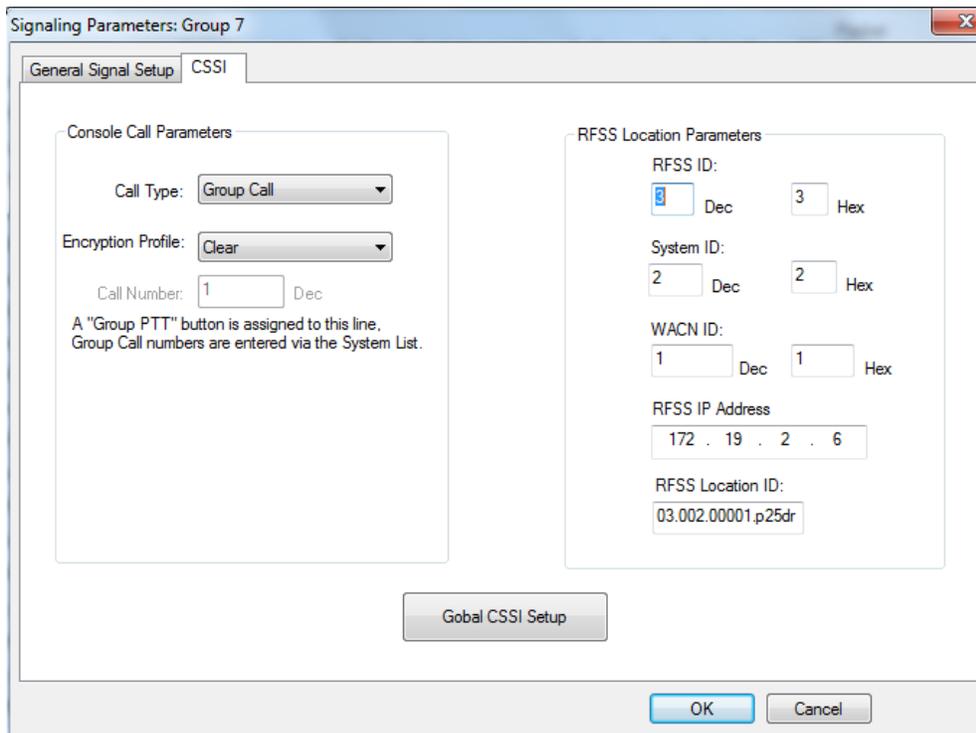


FIGURE 2. Group Call View, selectable Group using Keypad and Group ID list

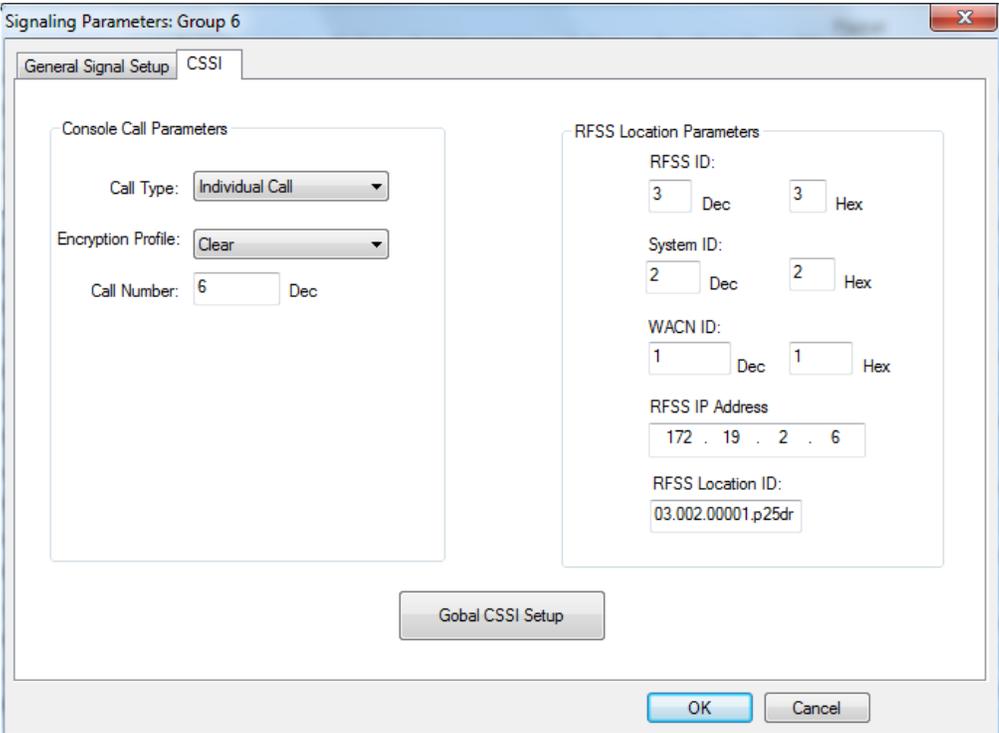


FIGURE 3. Individual/Private Call view, dedicated Subscriber Unit (SU)

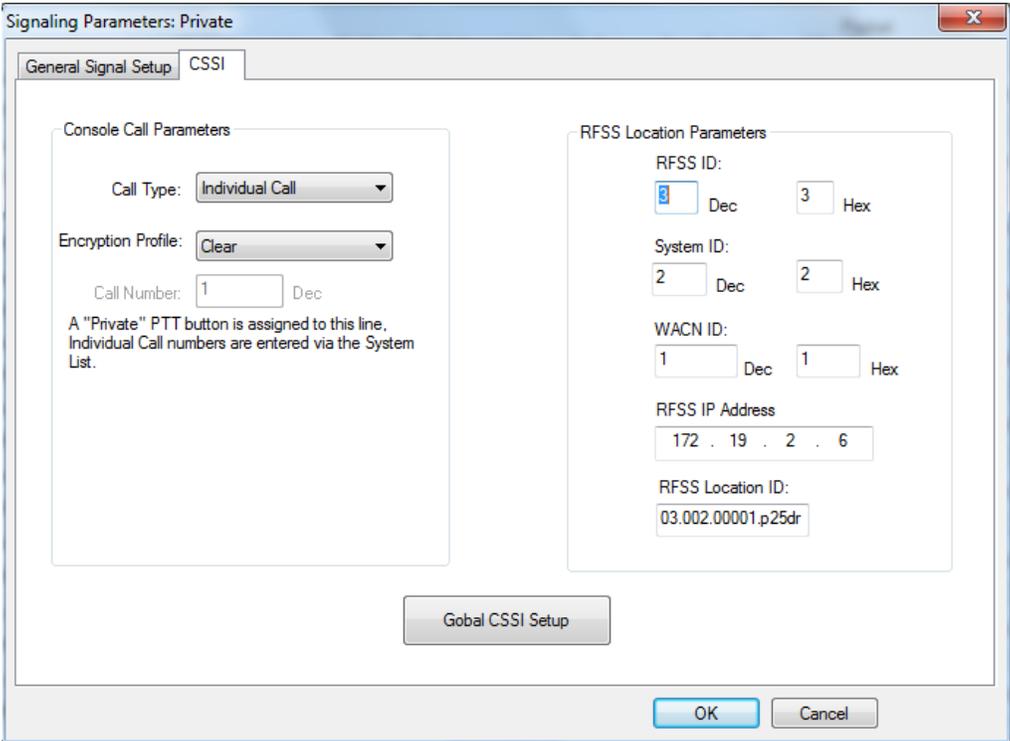


FIGURE 4. Individual/Private Call view, selectable SU using Keypad and User ID list.

- Click the **Local Consoles** tab.
The Local Consoles page appears.

The screenshot shows the 'Global Parameter Setup' dialog box with the 'Local Consoles' tab selected. The dialog has several tabs: Appearance, Audio, Control Settings, IRR Recording, Local Consoles, Peripherals, and Recording. The 'Local Consoles' tab contains two main sections: 'Local Console IP Addresses' and 'Direct IP Console Subscriber IDs'. The 'Local Console IP Addresses' section has a 5x2 grid of IP address input fields, with the first field in the first row containing '0'. The 'Direct IP Console Subscriber IDs' section has a 5x6 grid of input fields, all containing '0'. Below this grid is a checkbox labeled 'Crossmute direct IP console subscriber IDs (Only for NEXEDGE, AIS and CSSI)'. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

- In the Direct IP Console Subscriber IDs fields, enter the **subscriber IDs** of the parallel consoles used.
- Select the **Crossmute direct IP console subscriber IDs** check box to prohibit parallel consoles from playing transmit audio.

21. From the Edit menu, select **Edit User ID List**.

The User ID List appears.

	Name: <input type="button" value="Sort By Name"/>	User ID: <input type="button" value="Sort By ID"/>	Type:	TX Inhibit:	Icon:
1	Console 1	65537	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
2	Console 2	131072	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
3	Console 3	196608	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
4	Console 4	262144	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
5	Console 5	327680	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
6	Console 6	393216	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
7	Console 7	458752	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
8	Console 8	524288	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
9	Radio 1	1	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
10	Radio 2	2	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
11	Radio 3	3	P25-CSSI	<input type="checkbox"/>	Filters Icon 1
12			Generic	<input type="checkbox"/>	Filters Icon 1

Buttons: Load File, Save File, OK, Cancel

22. In the Name field, enter the **user name**.

23. In the User ID field, enter the **user ID**.

24. From the Type drop down menu, select **P25-CSSI**.

The User ID list is used to alias IDs for incoming calls and to populated the keypad control.

25. Click the **OK button** to close the window.

26. From the Edit menu, select **Edit Group ID List**.

The Group ID List window appears.

	Group: <input type="button" value="Sort By Name"/>	Group ID: <input type="button" value="Sort By ID"/>	Type:	TX Inhibit:	Set Color:
1	Announcement Grp	20	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
2	Group 1	1	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
3	Group 2	2	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
4	Group 3	3	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
5	Group 4	4	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
6	Group 5	5	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
7	Group 6	6	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
8	Group 7	7	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
9	Group 8	8	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
10	Group 9	9	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
11	System Call	65535	P25-CSSI	<input type="checkbox"/>	<input type="checkbox"/> Filters
12			Generic	<input type="checkbox"/>	<input type="checkbox"/> Filters

Buttons: Load File, Save File, Uncheck All, Set Color, Reset Colors, OK, Cancel

27. In the Group field, enter the Group Name of each Talkgroup.

28. In Group ID field, enter the **Group IDs of each Talkgroup** in the P25-CSSI system.
29. From the type drop down menu, select **P25-CSSI**.
The Group ID list is used to alias IDs for incoming calls and to populate the Keypad control.
30. Click **OK** to close the Group ID List.
31. Add **needed buttons** to design to operate.
32. Save the **.veg file**.
33. Run **C-Soft Runtime**.

6.0 Compatibility

- Compatible with Tait TN9400 P25 Trunked Node Controller version 2.14.06 for Tait Trunking systems.
- Compatible with ADHB-4 Version 3.100
- Compatible with Telex Activation License Tool Version 1.400

7.0 Installation

To **install C-Soft on Windows 7, Windows 8, and Windows 10**:

1. Double click on the **C-Soft_Setup_v7500.exe setup executable**.
2. Follow the **steps provided on the screen to install C-Soft**.

NOTE: During the C-Soft installation, the user will be prompted to install updated drivers for the ADHB-4. Follow the instructions on the screen to complete ADHB-4 Driver Installation. If up-to-date ADHB-4 Drivers have already been installed, this step can be skipped.

NOTE: During the C-Soft installation, the user will be prompted to install Telex License Server, which is required for obtaining and maintaining licenses for C-Soft.

NOTE: The Telex License Server Installer may also install the prerequisite Microsoft Visual C++ 2012 Redistributable package if necessary. If Microsoft Visual C++ 2012 Redistributable is already present, this step can be skipped.

3. As necessary, contact Telex Technical Support to acquire license Entitlement Certificates. Consult the C-Soft manual's appendix titled **Telex License Activation Tool** for more information on licensing requirements, activation processes, and architecture.

To **upgrade C-Soft**:

1. Uninstall any **previous copies of C-Soft** using the Windows Uninstall Program feature under Control Panel.
2. Locate the **appropriate version of C-Soft installation package** to install C-Soft.

8.0 Troubleshooting

1. CSSI Line is grayed out and the console can't connect to the system.
 - Check the RFSS Locations Parameters under Signaling Parameters for each line and make sure they match with the P25 infrastructure settings.

- Check the Global P25 CSSI Parameters and make sure they match with the system setup.
 - Some of the parameters use either decimal or hexadecimal values, please make sure the correct values have been entered.
2. CSSI Line is visible in runtime but the console can't transmit or receive.
 - Check the Group value under the Group ID list.
 - Be sure the Group ID type is set to P25-CSSI.
 3. Console can't make a System Call
 - Make sure the Group ID value for system call is 65535 (decimal).
 4. Console can't get the key from the Key Fill Device
 - Check the serial connection between the computer and the key fill device.
 - Select the correct serial port under Encryption setup.
 5. Console can't populate the user or group ID in the Keypad module.
 - Make sure a system is created in the C-Soft design.
 6. Select the correct system for each line in the Signaling Parameters Setup.

