Configuring KlasTA AERO 256K to HotDial with a KIV-7 using AERO

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1.0 Introduction

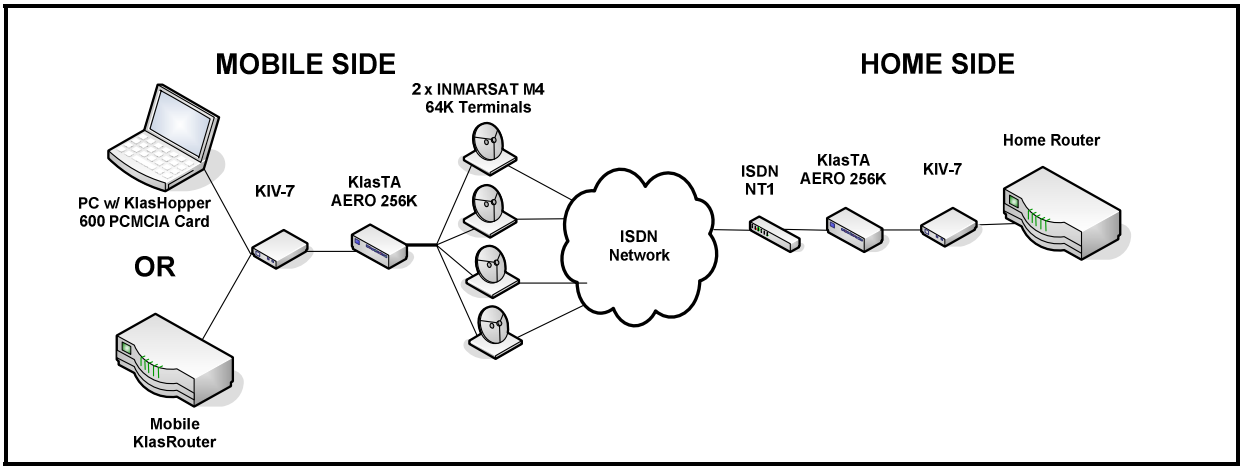

Figure 1. Sample Scenario using the KIV-7 for Type-1 Encryption

This document describes how to configure a KlasTA AERO 256K connected to a KIV-7 in order to HotDial a broadband ISDN connection using four 64K INMARSAT satellite terminals. The HotDial option uses the DTR signal from the Red-Side communication device (i.e. KlasHopper or KlasRouter) to prompt KlasTA AERO 256K to initiate the dialing sequence. Conversely, once DTR is lowered, KlasTA AERO 256K will close the connection after a specified time period.

In this example, KlasTA AERO 256K uses the AERO protocol in order to multiplex the data stream from the RS-530 synchronous serial port into up to four individual 64K channels. These channels will be sent through the ISDN Output ports on the KlasTA AERO 256K connected to the INMARSAT terminals. Follow the directions in the sections below outlining the steps from the KlasTA AERO 256K configuration wizard.

2.0 Cable Connections

Prior to beginning, ensure the following cable connections have been properly secured:

1. Power cord is plugged in and KlasTA AERO 256K is on.
2. Control Port Cable is connected to the PCs serial port.
3. Control Port Cable is connected to ‘Control’ Port 2 on the front of the KlasTA AERO 256K.
4. Black KIV-7 cable is connected to the male RS-530 connector of the KIV-7 and the female RS-530 synchronous serial port on the KlasTA AERO 256K.
5. ISDN cables are connected to the RJ-45 ISDN Output Ports from KlasTA AERO 256K and the ISDN ports on each M4 Terminal. For more information on the cable connections associated with KlasTA AERO 256K, refer to Application Note Q103002.

3.0 Configure the KIV-7 to work with KlasTA AERO 256K

The KIV-7 has a specific sequence of settings that allow it to encrypt data using the RS-530 serial data port. Follow the instructions from Application Note Q100004 in order to configure the KIV-7 so that it will work properly with KlasTA AERO 256K.

4.0 Configuring KlasTA AERO 256K

Open the KlasTA AERO 256K configuration application on your PC. Follow the steps below to configure KlasTA AERO 256K.

1. Click on the 'Configure' button on the opening menu.

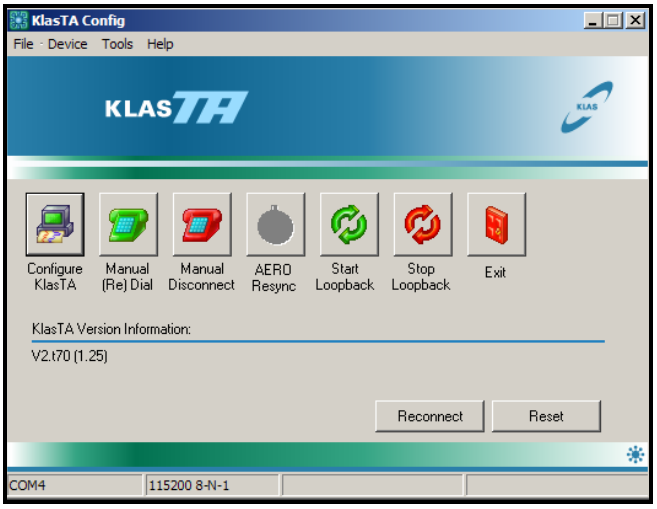

Figure 2. KlasTA AERO 256K Configuration Main Screen

2. Check the 'Configure KlasTA using step-by-step wizard' radio button. Click the 'Next' button to continue and move on to the next configuration screen.

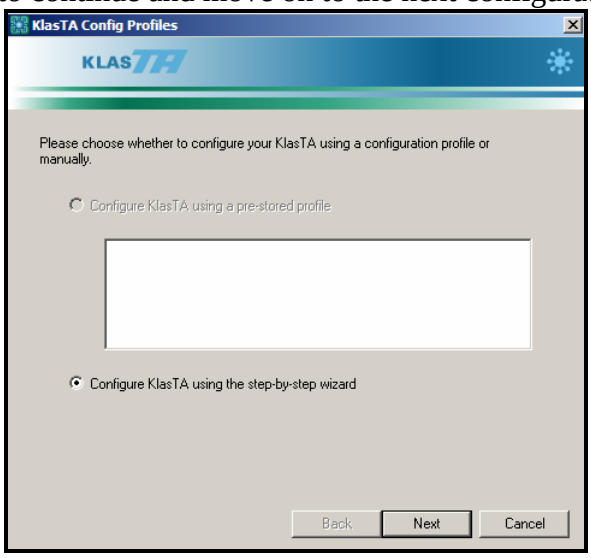

Figure 3. KlasTA AERO 256K Configuration Profiles Screen

3. Check the 'Encryption Device' radio button and select KIV-7 as the Encryption Device from the pull-down menu. **(Note: This parameter must be identical for the KlasTAs on both sides of the call.)**

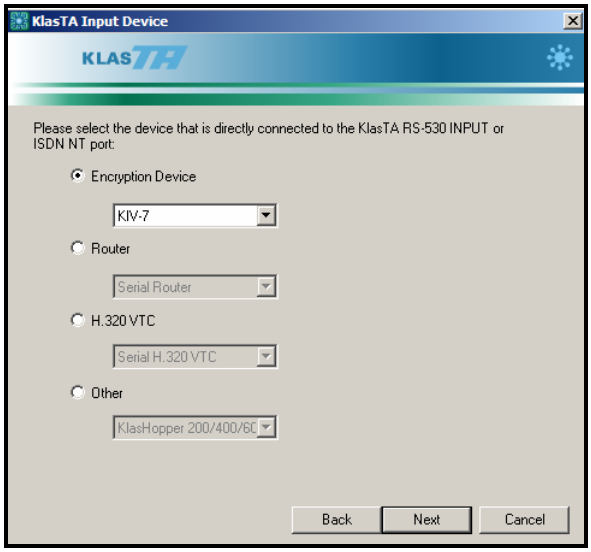

Figure 4. KlasTA AERO 256K Input Device Screen

4. Select the 'Satellite' radio button indicating you will be dialing from a satellite terminal.

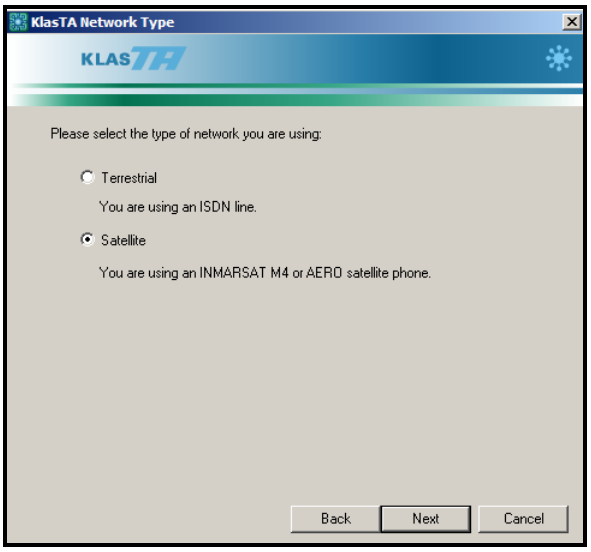

Figure 5. KlasTA AERO 256K Network Type Screen

5. Select the 'KLAS AERO' radio button indicating that both KlasTA AERO 256Ks will be using the AERO protocol.

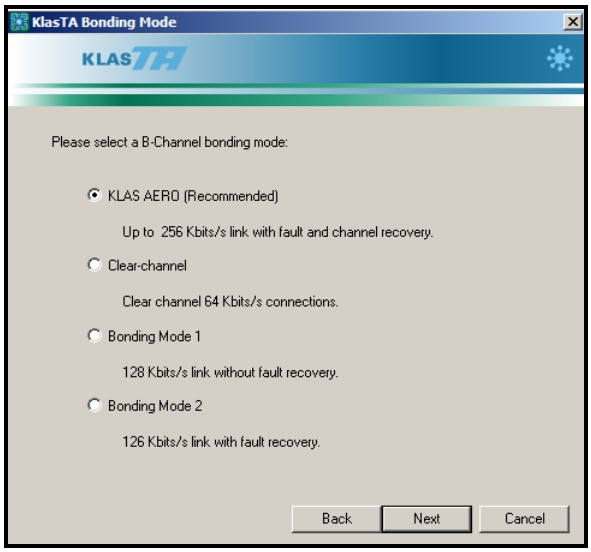

Figure 6. KlasTA AERO 256K Bonding Mode Screen

6. Select the 'Dial and Answer' radio button to enable KlasTA AERO 256K to initiate the dialing sequence. Also, check the 'Dial when DTR goes high (Hotdial)' radio button. This option specifies that KlasTA AERO 256K will only dial when DTR is asserted. If you are using a DTR switch cable, check the 'I am using a DTR switch cable…' box. Finally, you can specify the DTR drop disconnect timeout. The default is 30 seconds and this value represents the amount of time KlasTA AERO 256K will wait once DTR is lowered before it automatically closes the connection.

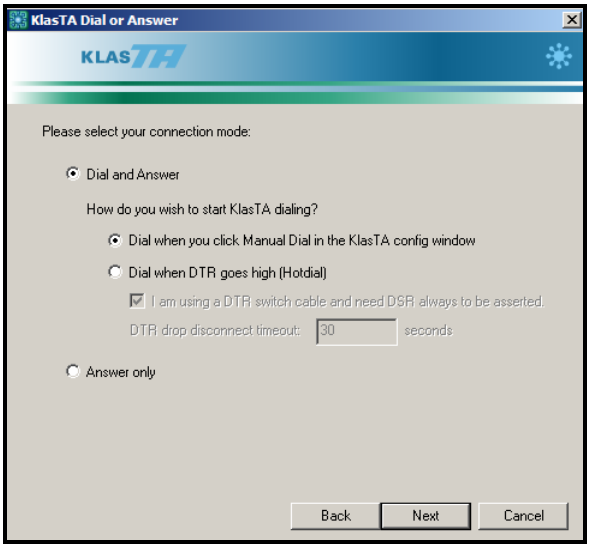

Figure 7. KlasTA AERO 256K Dial and Answer Screen

7. Input the dial strings of the opposite KlasTA AERO 256K you would like to call. Since this is a 256K call, there are four 64K B-channels. Check the B2, B3 and B4 boxes and then enter the dial strings associated with each 64K channel. Ensure you type in '#' after the last digit in the dial string indicating to the KlasTA AERO 256K that the last number has been dialed.

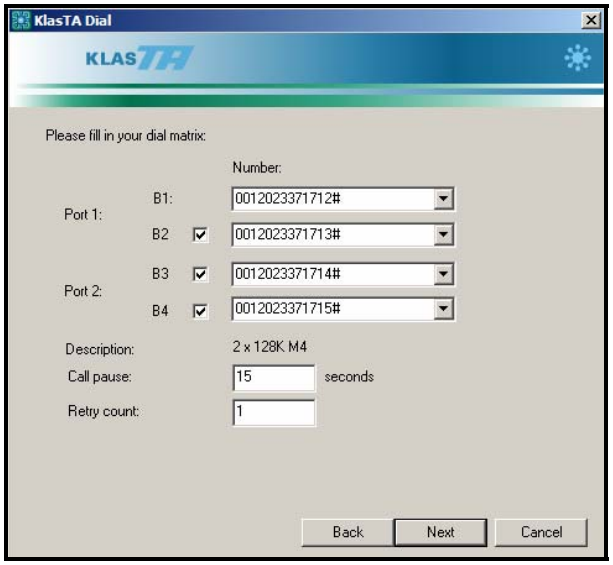

Figure 8. KlasTA AERO 256K Dial Parameters Screen

8. The KlasTA AERO 56K menu screen is designed for compatibility with H.320 Video Conferencing. The H.320 VTC protocol is based on the ISDN format and only operates at intervals of 64K and 56K. Since the Aero protocol uses one out of 64 bytes for bandwidth management, the actual throughput is 63K which will not work at the 64K H.320 variant. Therefore, when using the Aero protocol, you must use the 56K version of the H.320 VTC protocol. If you plan to conduct an H.320 VTC, check the box; otherwise, leave the box unchecked.

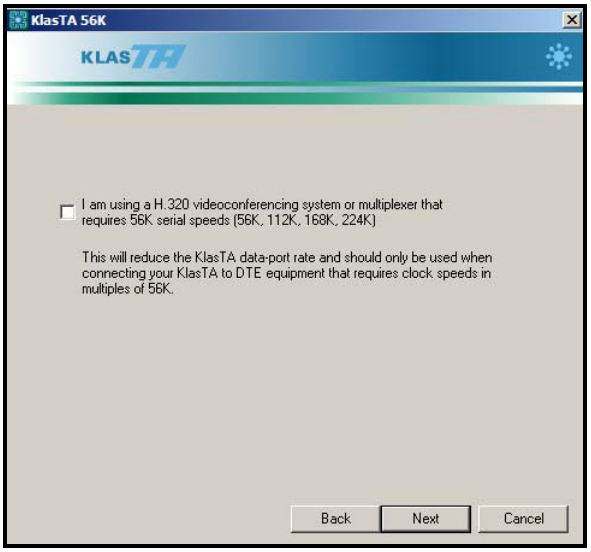

Figure 9. KlasTA AERO 256K H.320 VTC Screen

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9. The Extra Config Commands screen allows you to enter manual commands that enable seldom used features. No extra configuration commands are needed for this setup.

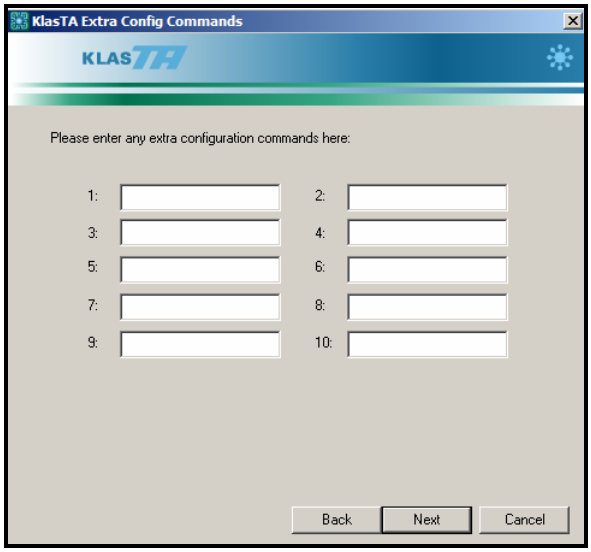

Figure 10. KlasTA AERO 256K Configuration Commands Screen

10. Review the configuration options to ensure they are correct and then click on the 'Configure' button to initiate the configuration sequence on the KlasTA AERO 256K.

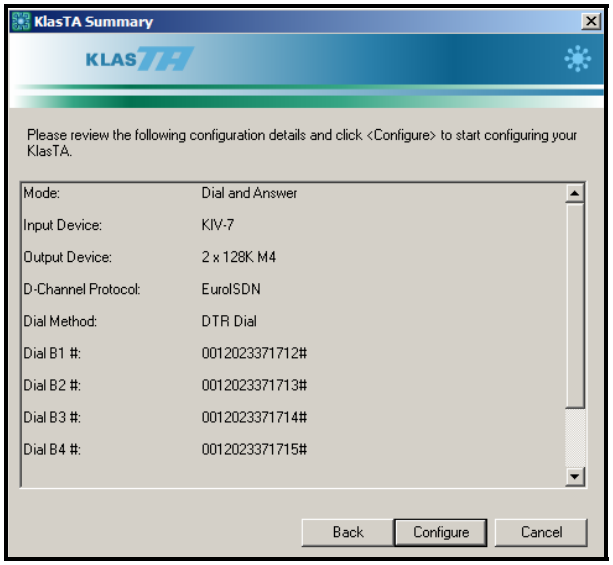

Figure 11. KlasTA AERO 256K Configuration Summary Screen

11. Click on the ‘OK’ button once the configuration sequence has successfully completed.

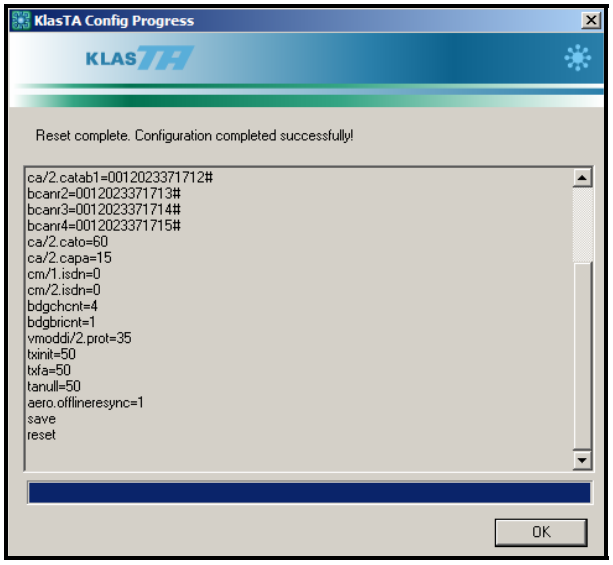

Figure 12. KlasTA AERO 256K Configuration Progress Screen

12. If desired, click the ‘Yes’ radio button to save this configuration. Click on the ‘Finish’ button to go back to the Main Menu.

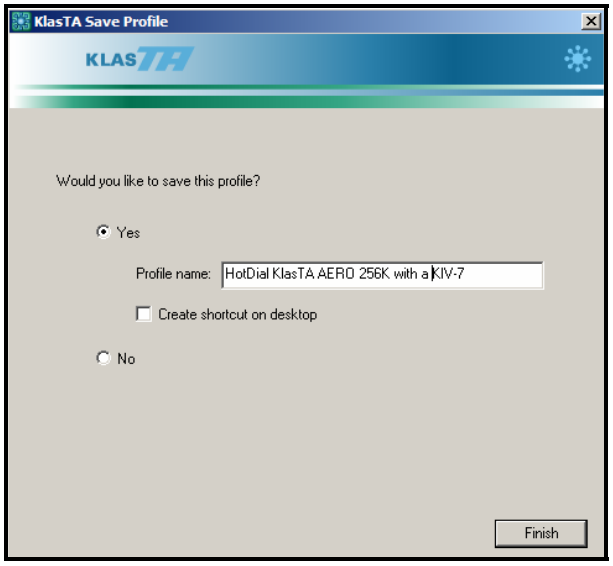

Figure 13. KlasTA AERO 256K Profile Screen

13. Remove the control port cable from Control Port 2 and connect it into Control Port 1 on the top level. Click the 'Reconnect' button on the Configuration Main Screen in order to initiate the connection to Level 1. The Configuration Main Screen should appear as it does below in Figure 14. Click on the 'Configure' button on the opening menu.

Figure 14. KlasTA Splitter Configuration Main Screen

14. Check the 'Configure KlasTA using step-by-step wizard' radio button. Click the 'Next' button to continue and move on to the next configuration screen.

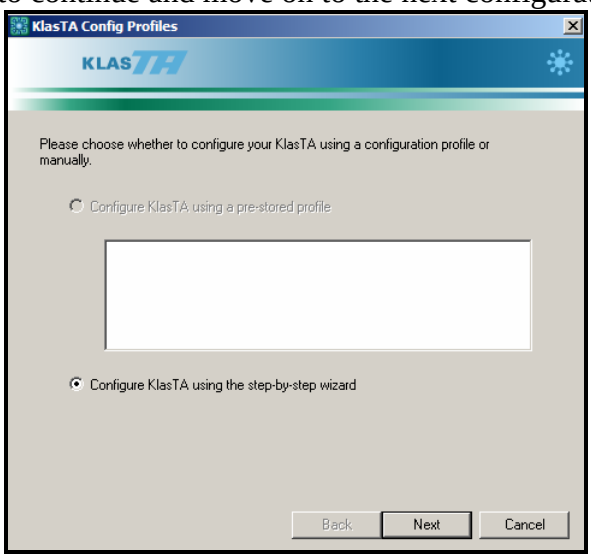

Figure 15. KlasTA Splitter Configuration Profiles Screen

15. Check the ‘Other’ radio button and select ‘Other ISDN’ as the Input Device from the pull-down menu.

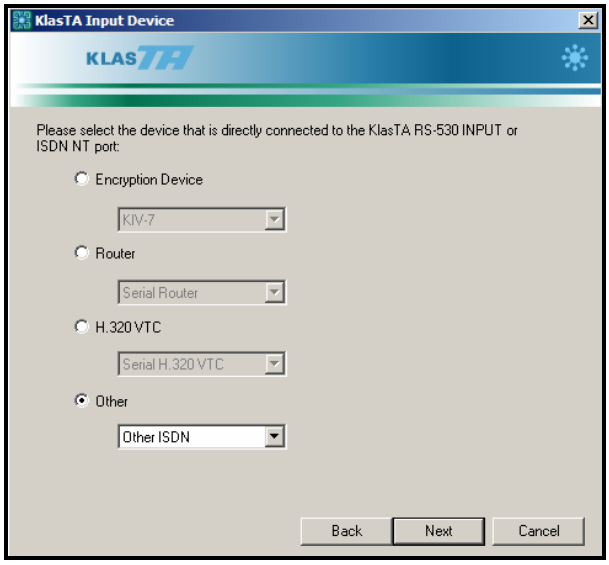

Figure 16. KlasTA Splitter Input Device

16. Check the ‘Use default number’ radio button indicating that you will use the dial-strings configured in Step 7 and do not wish to specify any more.

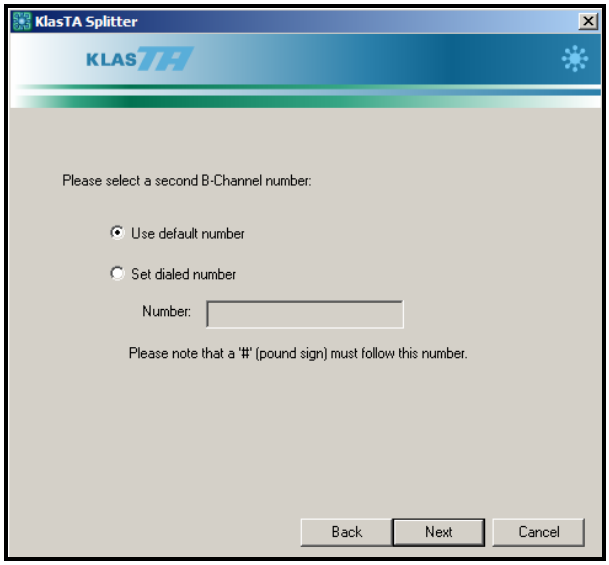

Figure 17. KlasTA Splitter Screen

17. The Extra Config Commands screen allows you to enter manual commands that enable seldom used features. No extra configuration commands are needed for this setup.

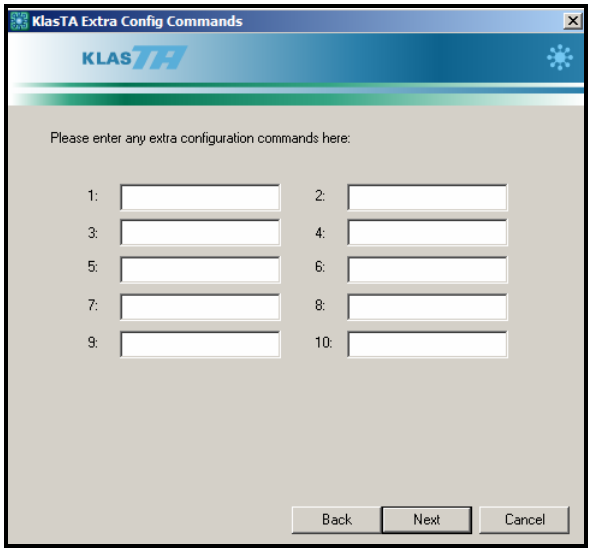

Figure 18. KlasTA Splitter Extra Configuration Commands Screen

18. Review the configuration options to ensure they are correct and then click on the 'Configure' button to initiate the configuration sequence on the KlasTA Splitter.

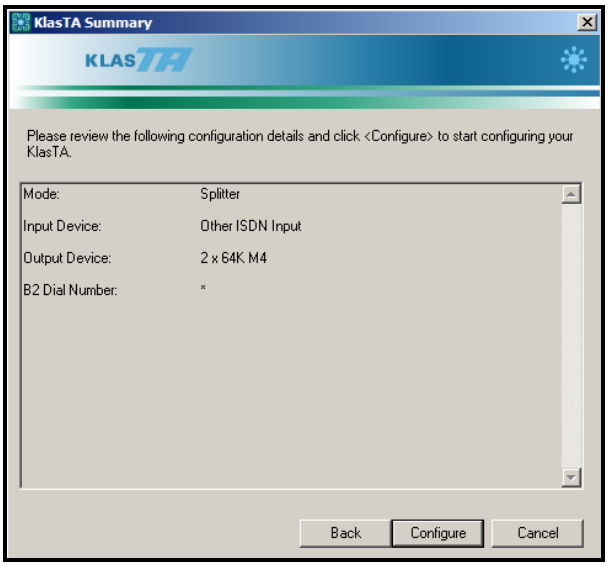

Figure 19. KlasTA Splitter Configuration Summary Screen

19. Click on the ‘OK’ button once the configuration sequence has successfully completed.

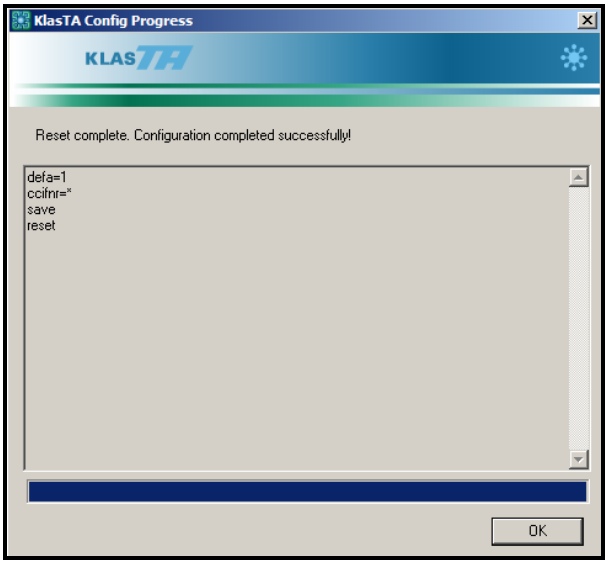

Figure 20. KlasTA Splitter Configuration Progress Screen

20. If desired, click the ‘Yes’ radio button to save this configuration as a Profile. Click on the ‘Finish’ button to go back to the Main Menu.

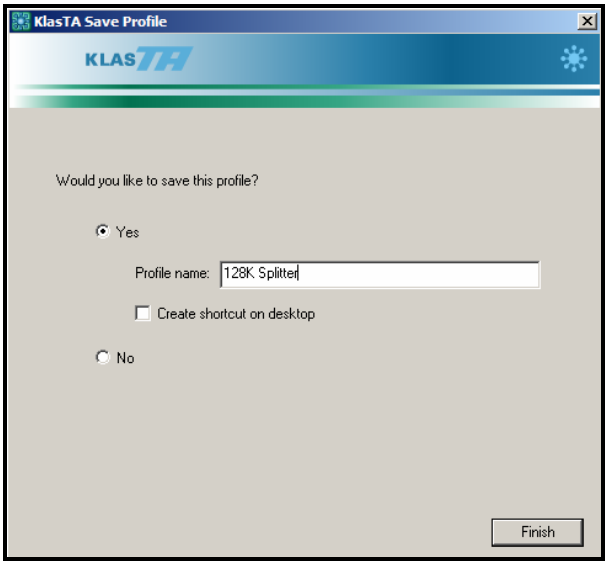

Figure 21. KlasTA Splitter Save Profile Screen

21. Repeat Steps 13-20 for Level 3 in order to configure the KlasTA Splitter for ISDN Y0 Input.

22. Reconnect the Control Port Cable back into the Level 2 Control Port. Click on the ‘Reconnect’ button at the bottom and return to the KlasTA Configuration Main Menu.

Configuring KlasTA AERO 256K to HotDial with a KIV-7 using AERO

MORE INFORMATION

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