



# Configuring KlasTA to Manual Dial with a KIV-7 using Bonding Mode 2

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The information in this article applies to:

- KlasTA
- KIV-7

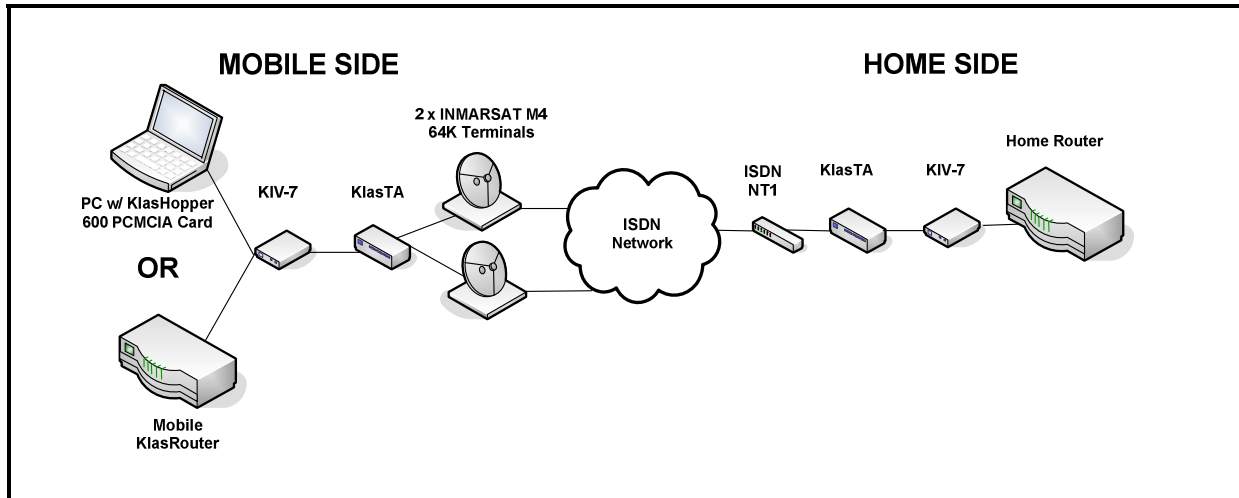
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## 1.0 Introduction



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

This document describes how to configure a KlasTA connected to a KIV-7 in order to manually dial a 128K connection using two 64K INMARSAT satellite terminals. In this example, KlasTA uses the Bonding Mode 2 protocol in order to multiplex the data stream from the RS-530 synchronous serial port into two individual 64K channels. These channels will be sent through the two ISDN Output ports on the KlasTA connected to the INMARSAT terminals. Bonding Mode 2 can be used over satellite since it has a limited amount of error-recovery. However, Bonding Mode 2 is a relatively immature and seldom-used protocol. It has not been widely adopted which leads to incompatibility issues among vendors. Therefore, Bonding Mode 2 should be used with caution and only if the Klas AERO protocol is not an option.

Follow the directions in the sections below outlining the steps from the KlasTA 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 is on.
2. Control Port Cable is connected to the PC's serial port.
3. Control Port Cable is connected to the 'Control' port on the front of the KlasTA.
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.
5. ISDN cables are connected to the RJ-45 ISDN Output Ports 1 and 2 from KlasTA and the ISDN S/T ports on the NT1 device.

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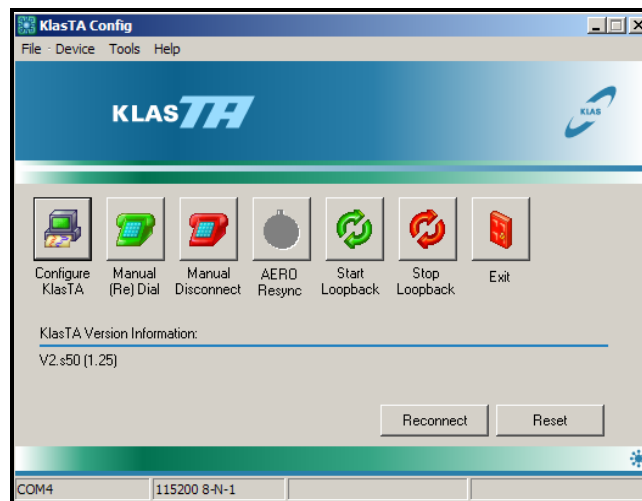
### 3.0 Configure the KIV-7 to work with KlasTA

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 Q100003 in order to configure the KIV-7 so that it will work properly with KlasTA.

### 4.0 Configuring KlasTA

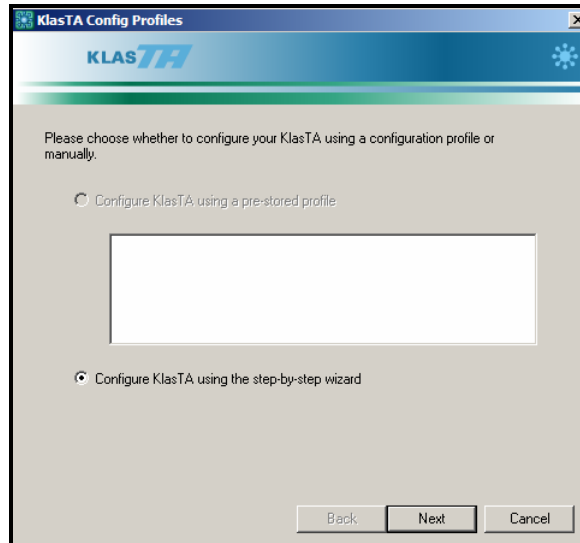
Open the KlasTA configuration application on your PC. Follow the steps below to configure KlasTA.

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



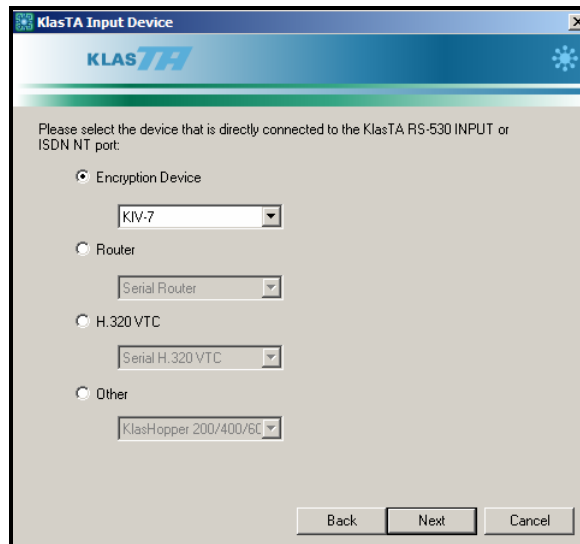
**Figure 2. KlasTA Configuration Main Screen**

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 Configuration Profiles Screen**

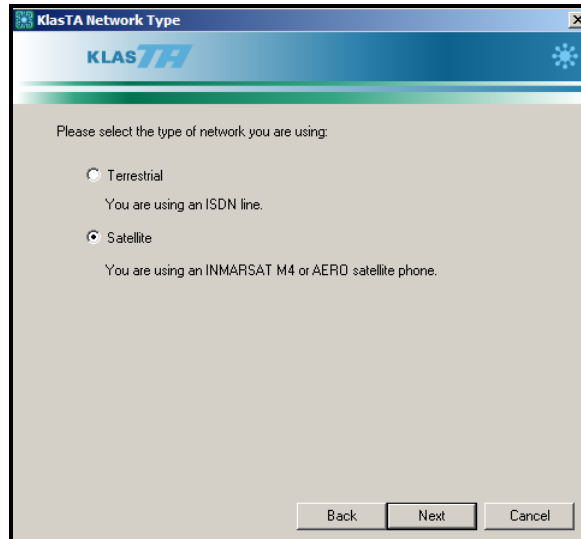
3. Check the 'Encryption Device' radio button and select KIV-7 as the Encryption Device from the pull-down menu. **(Note: This parameter must be identical for the KlasTAs on both sides of the call.)**



**Figure 4. KlasTA Input Device Screen**

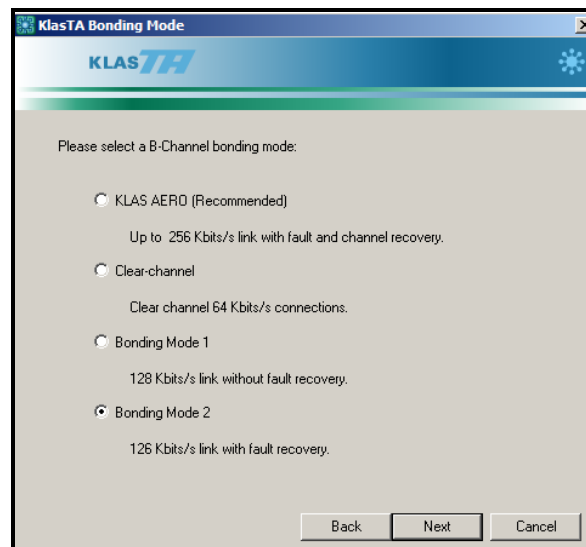
## **Configuring KlasTA to Manual Dial with a KIV-7 using Bonding Mode 2**

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



**Figure 5. KlasTA Network Type Screen**

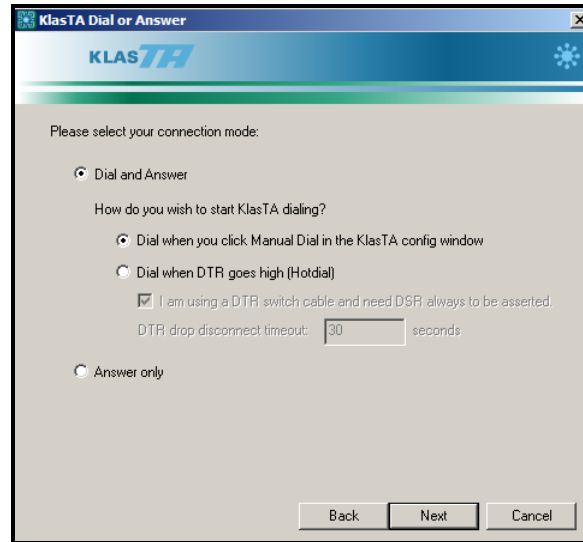
5. Select the 'Bonding Mode 2' radio button indicating that both KlasTAs will be using the Bonding Mode 2 protocol.



**Figure 6. KlasTA Bonding Mode Screen**

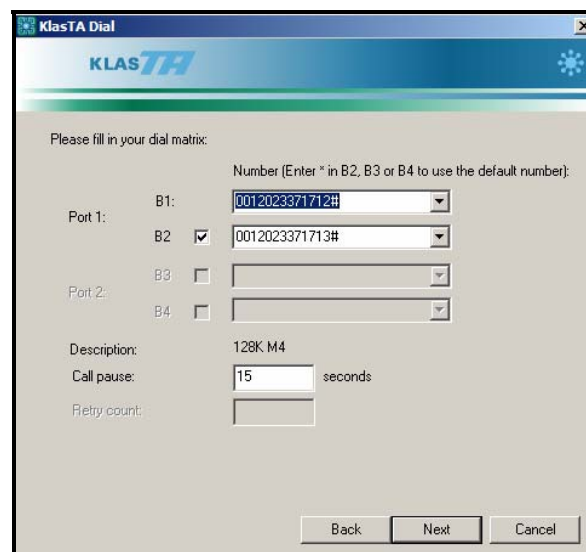
## **Configuring KlasTA to Manual Dial with a KIV-7 using Bonding Mode 2**

- Select the 'Dial and Answer' radio button to enable KlasTA to initiate the dialing sequence. Also, check the 'Dial when you click Manual Dial in the KlasTA config window' radio button. This option specifies that KlasTA will only dial when you push the 'Manual Dial' button on the KlasTA Configuration Wizard Main Screen.



**Figure 7. KlasTA Dial and Answer Screen**

- Input the dial strings of the opposite KlasTA you would like to call. Since this is a 128K call, there are two 64K B-channels. Check the B2 box and then enter the two dial strings associate with each 64K channel. Ensure you type in '#' after the last digit in the dial string indicating to the KlasTA that the last number has been dialed.



**Figure 8. KlasTA Dial Parameters Screen**

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8. 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 9. KlasTA Extra Configuration Commands Screen**

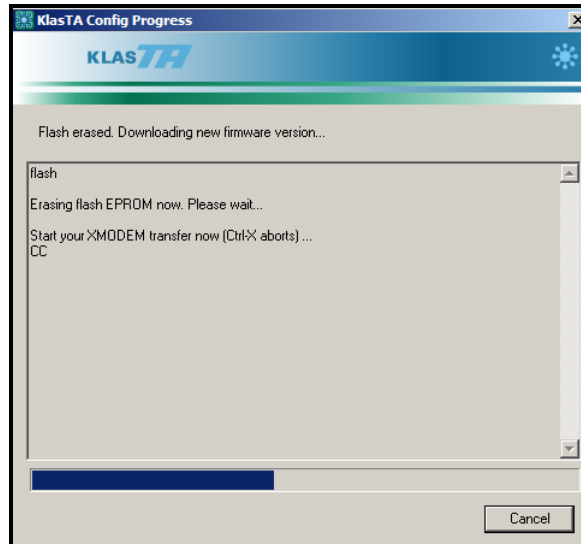
9. Review the configuration options to ensure they are correct and then click on the 'Configure' button to initiate the configuration sequence on the KlasTA. Depending on the existing stored settings, you may be alerted that this configuration requires a firmware change. Click on the 'OK' button to continue the configuration sequence.

Mode:	Dial
Input Device:	KIV-7
Output Device:	128K M4
D-Channel Protocol:	EuroSDN
Dial Method:	Manual Dial
Dial B1 #:	0012023371712#
Dial B2 #:	0012023371713#
Bonding Mode:	Bonding Mode 2

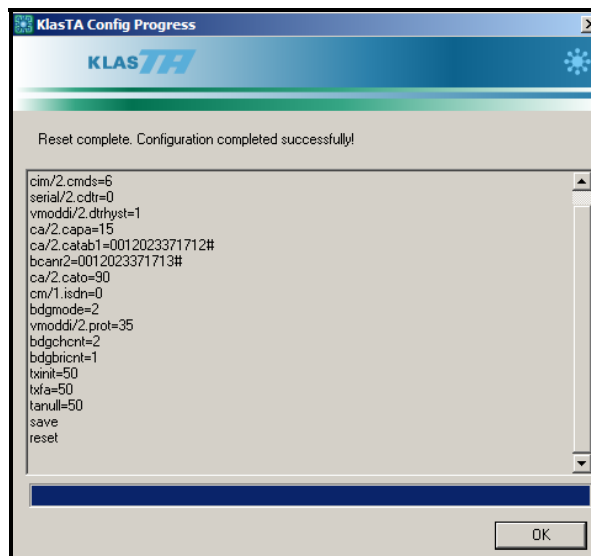
**Figure 10. KlasTA Configuration Summary Screen**

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10. If required, KlasTA may initially erase and reflash the firmware needed to support Bonding Mode 2, as shown in Figure 11. Once the firmware change is complete, the configuration settings will be loaded into KlasTA, as shown in Figure 12. Click on the 'OK' button once the configuration sequence has successfully completed.



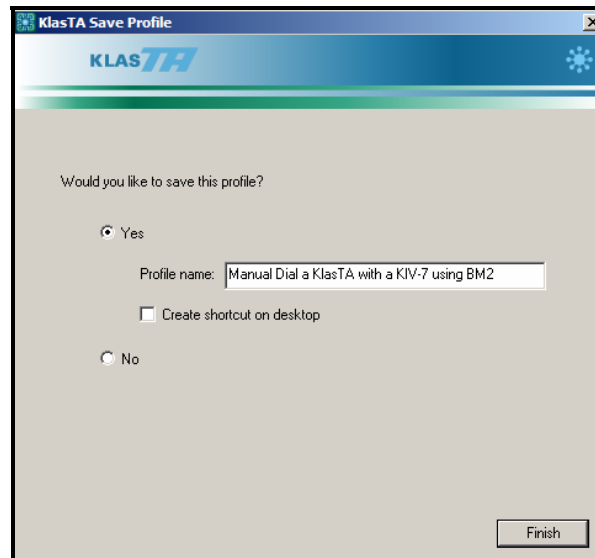
**Figure 11. Downloading BM2 Firmware Version**



**Figure 12. KlasTA Configuration Progress Screen**

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11. 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 Profile Screen**

12. In the Main Menu, once you are ready to initiate the call, click on the 'Manual (Re) Dial' button with the green phone. This will begin the dialing sequence.

## MORE INFORMATION

For more information about KlasTA and other Klas products, visit the following Klas website:

<[www.klasonline.com](http://www.klasonline.com)>

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