TCP TRAPPING Application Note

INTRODUCTION

TCP Trapping allows DMP Remote Link[™] downloading software to connect to a DMP network security control panel behind a firewall that does not allow inbound connections. DMP TCP Trapping can also be used to connect to the panel if the IP address of the control panel has been changed or is unknown.

Using TCP Trapping, Remote Link Operators can make a change in panel programming and then send it to panels upon the next communication from the panel. This allows for unsupervised remote changes. Operators can set a change and trap at the end of the day and check the next morning to see that it sent.

In addition, TCP Trapping can be used when multiple Remote Link computers use a single database.

To create a TCP Trap, the Remote Link system sends a message to the panel's DMP Central Station alarm receiver with trap instructions for the panel to connect. The next time the panel communicates to send routine check-ins, daily test reports or alarm messages, the receiver informs the panel of the trap instructions from the Remote Link system. The panel will use these instructions to connect to the Remote Link system to perform the actions requested such as, automatic upload or download programming then disconnect.



Figure 1: Connection Between Remote Link and the Panel





Figure 2: TCP Trapping Overview

REMOTE LINK CONFIGURATION

In order for the operator to program and initiate a trap in Remote Link, the operator must have permission to do so. Permission is given by selecting the Allow Trap checkbox in System > Operator Information in Remote Link. Permission must be given before the operator can initiate a trap.

Trap Configuration

Remote Link must be configured to allow TCP Trapping. The operator must configure the TCP communication IP address connections in Remote Link for the panels to be trapped. These connections are configured in

System > Configure > Remote Link > TCP Trap tab.

- Select the TCP Trap Enabled checkbox to allow 1. Remote Link to set traps.
- The Programming App. Address and Port must 2. be set to the IP Address and port of the Remote Link computer used to set traps and program the network control panel. If the Remote Link computer is not on a public network enter the public address of the network router. The network should be configured to port forward panel connections to the Remote Link computer.
- The Trap Server Address and Port must be set to 3 the IP address and port of the SCS-104 or SCS-101 receiver line card or SCS-VR where the trap instructions will be sent from Remote Link.

CONFIGURING AND SETTING TRAPS

Only panels with Type Network selected in Panel Information use TCP trapping.

Configure a New Trap

- 1 Select **Panel > Trap** from the toolbar.
- 2. In the **New Trap** dialog box enter the receiver number followed by the account number for the panel to trap. Select **OK**, and the Trap options window opens.
- 3 Use the Options checkboxes to select the desired actions for the trap.
 - Select Send File to send the panel programming from Remote Link to the panel.
 - Retrieve File retrieves panel programming from the panel and saves the information to the Remote Link database.
 - **Request Events** retrieves a copy of the panel's event buffer to the Remote Link database.
 - **Remote Update** updates the panel's software using a specified .RU file. Select the Change File button to browse to the location of the appropriate .RU file. If no checkboxes are selected the panel will connect to Remote Link and allow manual programming by an operator.
- 4. Click **OK** to send the Trap to the receiver and save a copy of the trap configuration in the Remote Link database. Up to 50 traps can be set in each receiver line card. The number that may be set in SCS-VR is unlimited. Traps are stored in the receiver for four hours and afterwards expires.



Figure 3: Operator Configuration

Remote Link Configurati	ion 🔲 🗖
<u> R</u> eceiver <u>M</u> odem <u>D</u> atabase	Other TOP Trap Modules Custom Fields
TCP Trap TCP Trap Enabled Programming App. Address	64.22.231.226
Programming App. Port	2002
Trap Server Address Trap Server Port	64.22.231.101 2001
	QK Cancel
Eigure 4: B	emote Link Configuration

Figure 4: Remote Link Configuration

New Trap	×
Account Number (with Receiver Number)	
1-5678	
OK Cancel	

Figure 5: New Trap Dialog Box

Name	Receiver Account	^	XR550
▶ ×R550	1 5678	III	Name PAndou Account # 1 - 5678
New	Delete		OK Cancel

Figure 6: Trap Configuration

CHECKING THE STATUS OF A TRAP

Once a trap has been configured and initiated, the operator can check the status of the trap by clicking **Panel > Network Trap Query > Request** button in the Trap Query window. Remote Link queries the receiver and a new window opens to display the status of panel traps stored in the receiver.

Trap Status Messages

The possible status messages of previously set traps are:

- Waiting The line card or SCS-VR is waiting for a message from the panel.
- Sent The panel has connected to the line card or SCS-VR and the trap instructions have been sent to the panel. The panel has acknowledged receiving the trap instructions.
- Failed The panel did not respond to the trap request.
- **Expired** The trap has been set for more than 4 hour and must be re-sent.

SET ALL TRAPS

Select **Panel** > **Set All Traps** to re-send all of the traps configured in the Remote Link database to the Receiver. This option is useful if a trap failed or expired.

When multiple Remote Link computers are connected to the same database, selecting Set All Traps on one of the Remote Link computers sends all failed and expired traps created by any of the Remote Link computers to the receiver again. All failed or expired will connect to the Remote Link computer where **Set All Traps** was chosen.

<u>F</u> ile <u>S</u> ystem	<u>P</u> anel P <u>r</u> ogram	<u>W</u> indow	<u>H</u> elp
Network T	rap Query 🗖	•	
Account	Status		
5678	Waiting		

Figure 7: Network Trap Query



Figure 8: Set All Traps



Designed, engineered, and manufactured in Springfield, MO using U.S. and global components.

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