

Application Note

Configuring DMS Central Control Software to Communicate with VMS Signs Using the PortServer[®] TS H MEI Serial Server

Introduction

This technical document provides instructions for configuring Skyline Products, Inc.'s DMS Central Control software to communicate with a sign's configured PortServer TS H MEI device (formerly called Digi One[®] TS). The instructions are intended for experienced technicians installing the PortServer TS H MEI device server to communicate with Skyline Variable Message Signs (VMS) using a Safetran 170E controller that includes a 470IB Prom module.

If you are not sure what this document describes, or if you have questions, please contact Skyline Customer Service at 719-392-9046, Option # 5.

PortServer TS H MEI is a product of Digi International[®].



PortServer TS H MEI Digi International

The PortServer TS H MEI serial server is used for universal, high-performance serial-to-Ethernet connectivity. It is designed for use in remote applications to withstand more extreme temperatures (-35° C to +74° C).

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Configuring DMS Central Control

Important: Before configuring the Skyline DMS Central Control software to communicate with the PortServer TS H MEI device, be certain that DMS Central can communicate with the sign. One method of verification is to connect a laptop running DMS Central, configured to communicate directly with the sign, to the local port in the sign and test the sign polling. Once you know the sign is working with a known good configuration, continue with the following step.

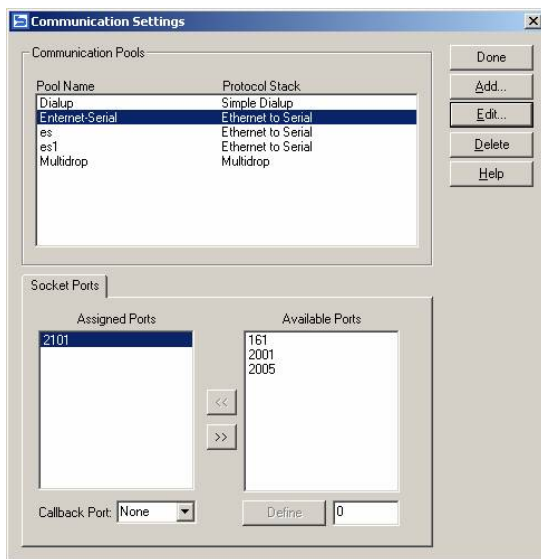
Updating the DMSServer.ini File

Add the following lines to the Config section of the **DmsServer.ini** file:

```
[Config]
ForceDestinationPort=false
DestinationPort=2101
```

Creating a Communication Pool

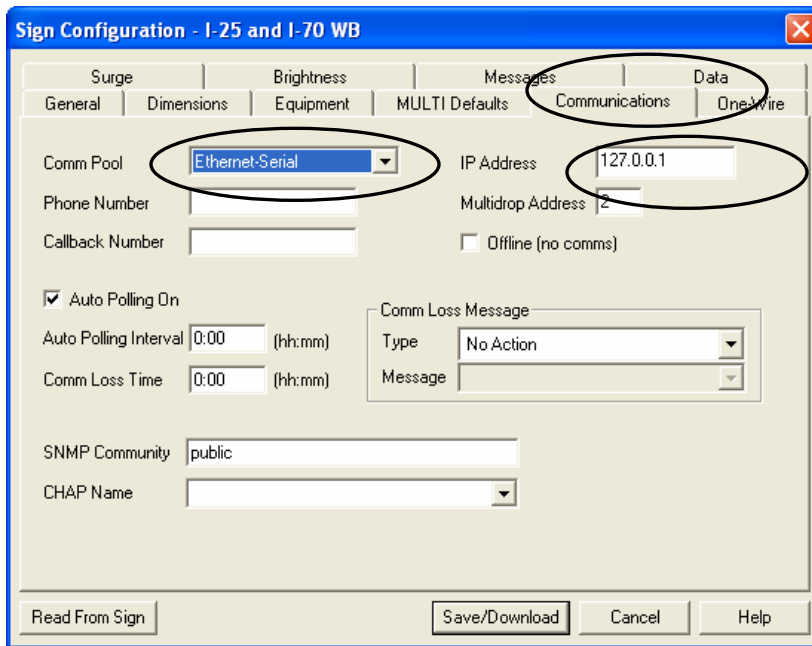
1. In the Skyline DMS Central Control, select **Admin>>Comms**. The **Communication Settings** dialog box appears.
2. Click **Add**. The **Comm Pool** dialog box appears.
3. In the **Comm Pool Name** text box, type a descriptive name. For example, **Ethernet-Serial**.
4. In the **Protocol Stack>>Name** text box, select **Ethernet to Serial**.
5. Click **OK**. Ethernet-Serial is added to the **Communication Pools** list.
6. In the **Available Ports Define** text box, type **2101** and then click **Define**. The port is added to the **Available Ports** list.
7. In the **Available Ports** list, double-click the **2101** port. The port is added to the **Assigned Ports** list. Double-click any other port numbers in the **Assigned Ports** list to move them to the **Available Ports** list. 2101 should be the only port in the **Assigned Ports** list.



8. Click **Done**.

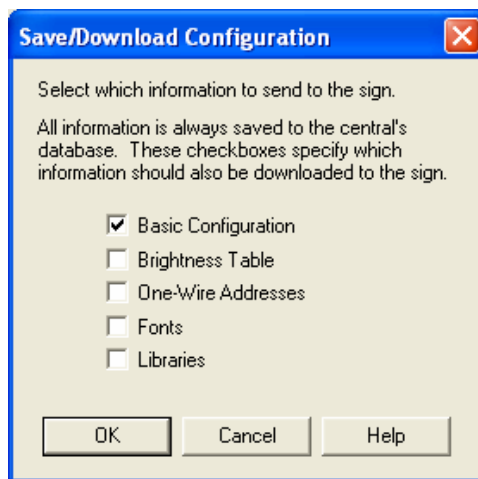
Configuring Sign Communications

1. In DMS Central Control, highlight a sign and then select **Signs>>Configure Sign**. The **Sign Configuration** dialog box appears.
2. Select the **Communications** tab.
3. In the **Comm Pool** drop-down list, select the communication pool you created. For example, **Ethernet-Serial**.
4. In the **IP Address** text box, type the sign's PortServer device's static IP address.



The screenshot shows the 'Sign Configuration - I-25 and I-70 WB' dialog box with the 'Communications' tab selected. The 'Comm Pool' dropdown is set to 'Ethernet-Serial' and the 'IP Address' text box contains '127.0.0.1'. Other visible fields include 'Phone Number', 'Callback Number', 'Auto Polling On' (checked), 'Auto Polling Interval' (0:00), 'Comm Loss Time' (0:00), 'SNMP Community' (public), and 'CHAP Name'. The 'Comm Loss Message' section has 'Type' set to 'No Action'. Buttons at the bottom include 'Read From Sign', 'Save/Download', 'Cancel', and 'Help'.

5. Click **Save/Download**. The **Save/Download Configuration** dialog box appears.



The screenshot shows the 'Save/Download Configuration' dialog box. It contains the following text: 'Select which information to send to the sign. All information is always saved to the central's database. These checkboxes specify which information should also be downloaded to the sign.' Below this text are five checkboxes: 'Basic Configuration' (checked), 'Brightness Table', 'One-Wire Addresses', 'Fonts', and 'Libraries'. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

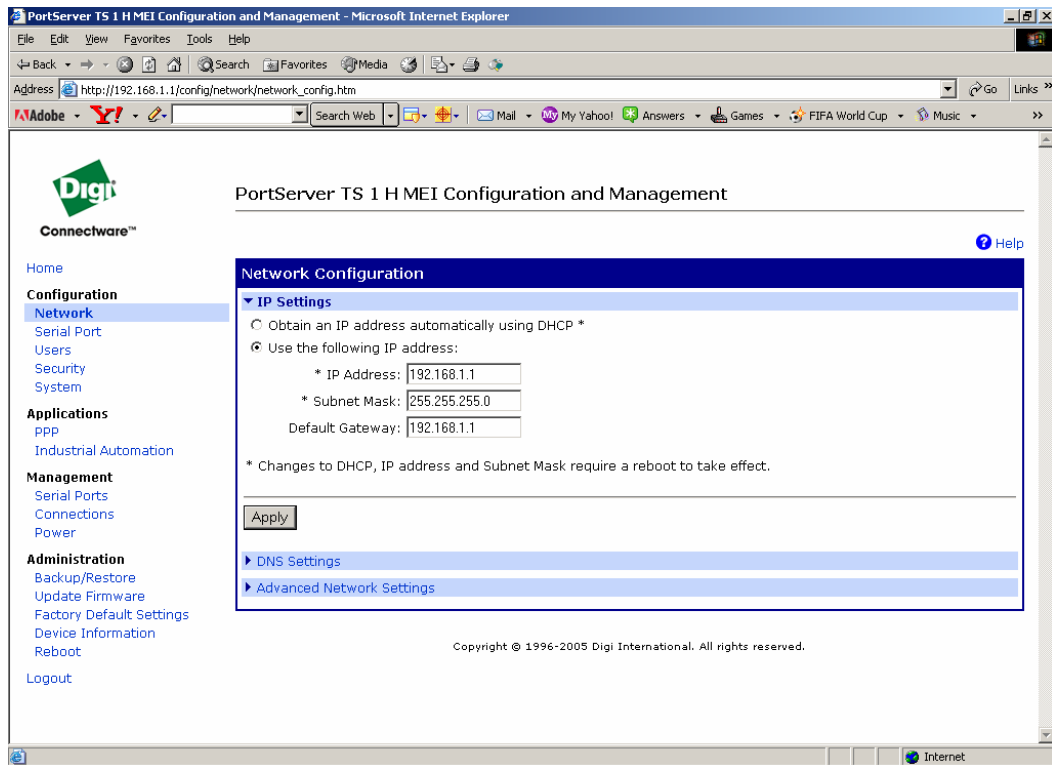
6. Select **Basic Configuration** and then click **OK**. The Comm Pool and IP address changes are downloaded to the sign.

Configuring the PortServer TS H MEI Device to Communicate with the VMS Sign

Use the following steps to configure the PortServer TS H MEI device so that DMS Central Control software can use the device to communicate with the sign.

Setting the Digi Network Configuration

1. Open a Web browser and type <http://xxx.xxx.xxx.xxx> (IP address of the Digi device) as the URL address to open the PortServer Configuration and Management window.
2. To set the Static IP of the Digi PortServer TS device, select **Network** in the left hand menu. The **Network Configuration** work area appears.

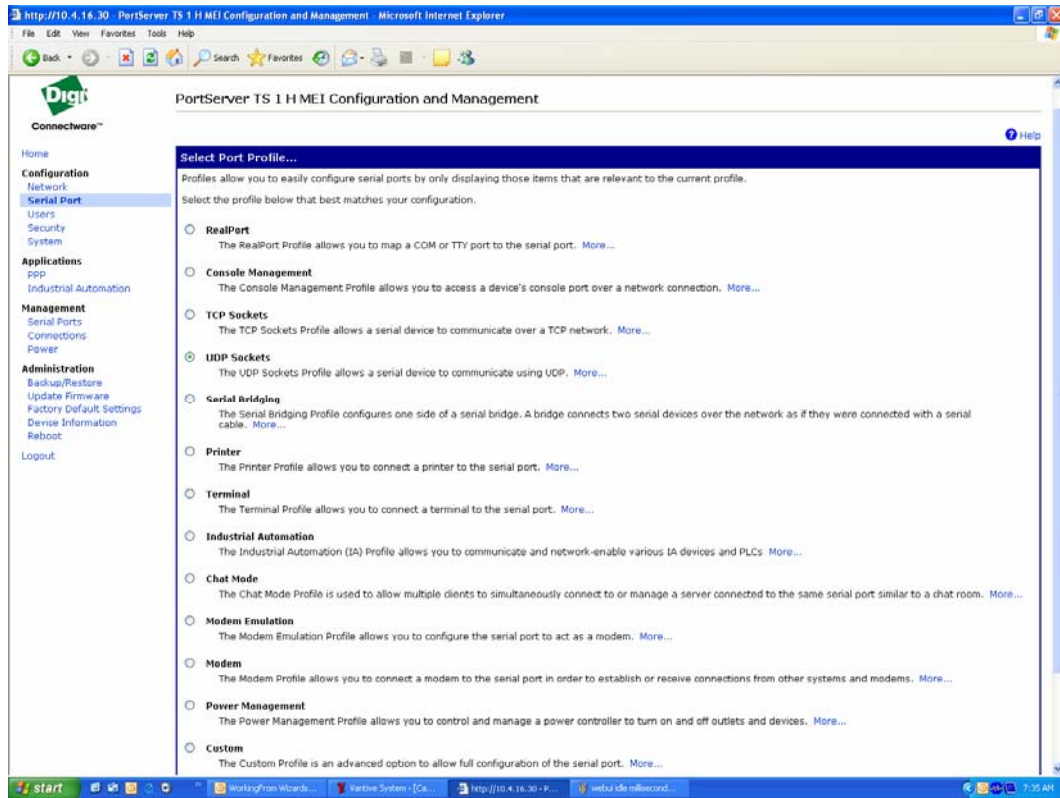


3. In the **IP Settings** area, select **Use the following IP address**.
4. In the **IP Address** text box, type the sign's PortServer TS H MEI device's static IP address. This address should match the address used in the Skyline DMS Central Sign Configuration>>Communications Tab.
5. In the **Subnet Mask** text box, type the subnet mask used on your network.

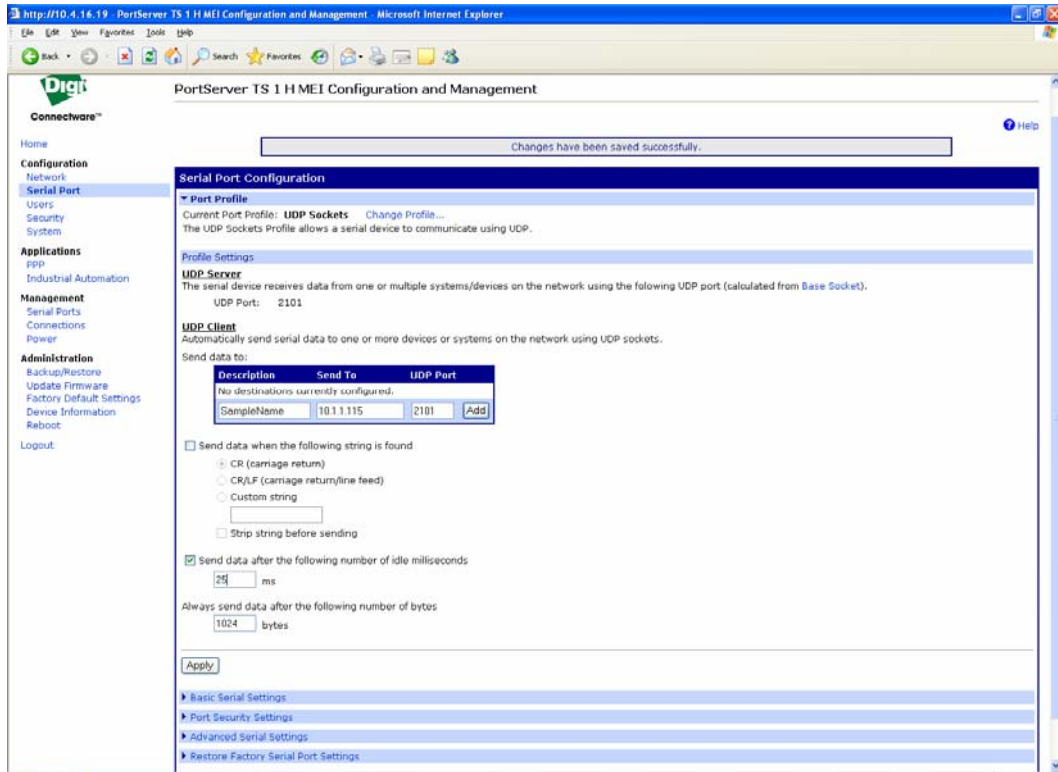
6. In the **Default Gateway** text box, type the gateway address used by your network.
7. Click **Apply**.

Setting the Port Profile

1. In the left hand menu, select **Serial Port**. The **Select Port Profile** work area appears.



2. Select **UDP Sockets** and then select **Apply**. The **Port Profile** configuration area appears.



3. In the **UDP Client – Send data to** table, type an informative description in the text box.
4. In the **Send To** text box, type the DMS Central Control server's static IP address.
5. In the **UDP Port** text box, type 2101.
6. Click **Add**.
7. Select the **Send data after the following number of idle milliseconds** check box and then type **25** in the **ms** text box. You may need to change this value if using modems, the value may need to be increased or decreased to optimize communications.
8. Click **Apply**.
9. Close PortServer Configuration and Management browser window.

Verifying Communications between the VMS Sign and the Digi Device

Poll the sign using Skyline DMS Central software to verify sign communications. See Skyline *DMS Central Control User's Guide*.

Note:

These instructions are for the PortServer TS H MEI; however, the information may be used as a general guideline for use with other Digi devices using similar configuration.