

1. Overview

Cypress Envirosystems's Wireless Pneumatic Thermostat (WPT) retrofits existing Pneumatic Thermostats in minutes to deliver Direct Digital Control (DDC) like zone control functionality in a fraction of a time and cost without disturbing the occupants.

The WPT enables remote monitoring of zone temperature, branch pressure, remote control of setpoints, and programmable setback or setup of the pneumatic HVAC systems. It also enables integration with utility Demand Response programs.

The WPT Server is the core of the WPT Wireless Network. Apart from the data logging functions, it hosts the configuration tools, remote monitoring and control applications, Auto Demand Response interface, and WPT BACnet Gateway.

2.1 Prerequisites for Installation

Before installing the WPT Server, the installer should have completed the wireless network planning, as per the WPT Network Planning Guide (Document no. 910-00006-01 rev 01). It must also be ensured that the following tasks are completed before proceeding to WPT Server installation:

- Selected the location for the WPT Server and Hub installation
- Identified the number of Repeaters and WPTs required
- Defined a naming convention the WPTs

2. WPT Server Installation

Installation of the WPT Server consists of the following:

- Setting up the WPT Server
- Accessing the WPT Server

2.1 Setting up the WPT Server

To set up the WPT Server, perform the following:

1. Set the WPT Server in a secured place
2. Connect the power cable to the WPT Server

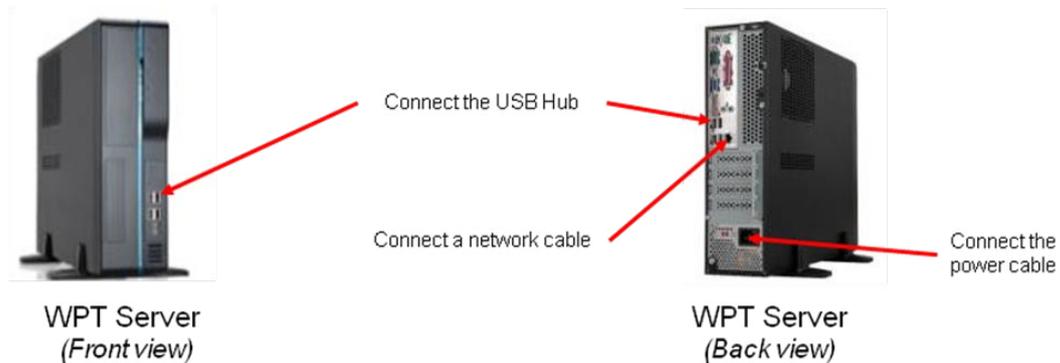


Figure 2- Connections to the WPT Server

3. Connect a network cable to the network port of the WPT Server.

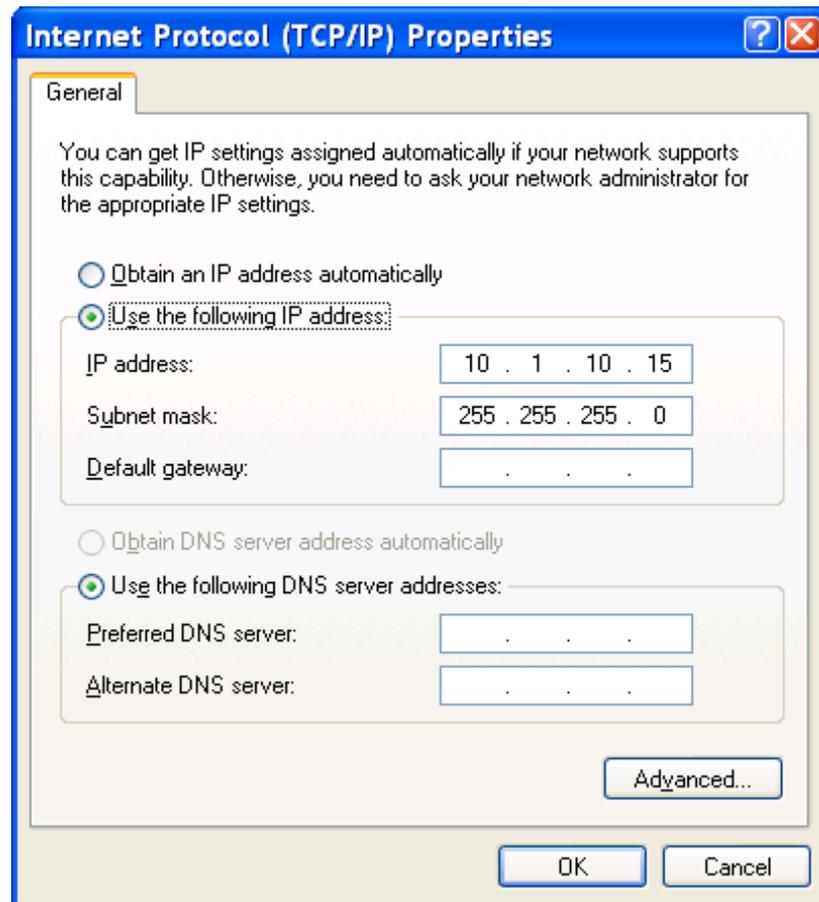
2.2 Accessing WPT Server

WPT Server can be accessed directly by connecting a Monitor, Keyboard and Mouse or from a laptop using Microsoft Remote Desktop Connection.

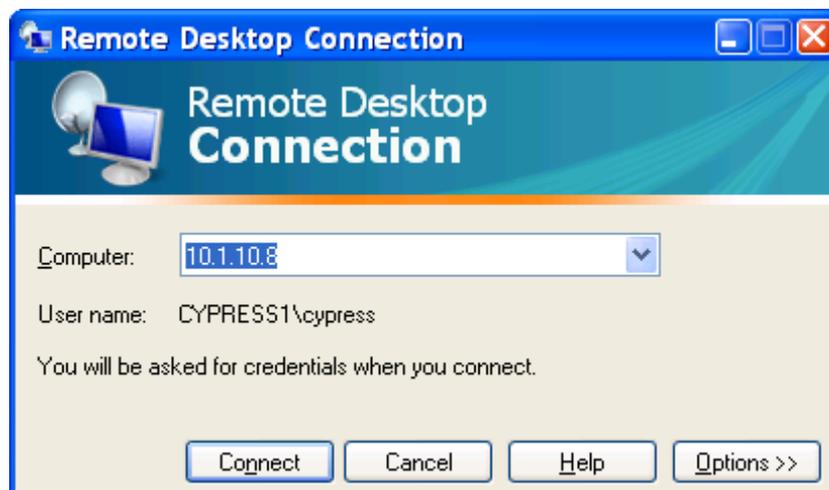
2.2.1 Accessing WPT Server Using Remote Desktop Connection

To access the WPT Server from a laptop using Remote Desktop Connection

1. Use a network cable to connect a Laptop to the WPT server.
2. Configure the Laptop with a static IP: 10.1.10.15 and subnet mask: 255.255.255.0



3. Start the Remote Desktop Connection on the laptop (Start -> All Programs -> Accessories -> Remote Desktop Connection)
4. Enter the WPT Server's default IP address : 10.1.10.8 as the computer to connect to and click "Connect"



5. Enter the credentials to Log On to the WPT Server

Default username: cypress

Default password: cypress123



6. On successful log in you can access the WPT Server

2.2.2 Changing the default password of the WPT Server

To change the default password of the WPT Server

1. Connect to the WPT Server from a laptop using Remote Desktop Connection as described earlier
2. On the WPT Server, click Start, click Control Panel, and then double-click User Accounts
3. Under “or pick an account to change”, click cypress
4. Click Change my password
5. Type your current password in Type your current password
6. Type your new password in Type a new password and Type the new password again to confirm
7. You can type a word or phrase to use as a memory aid for the new password in Type a word or phrase to use as a password hint
8. Click Change Password.

3. Accessing the WPT Web Portal

The WPT Web Portal has a setup tool for generating the IDs required for configuring the Hub, Repeaters, and WPTs in the wireless network. The WPT Web Portal can be accessed using Microsoft Internet Explorer from any computer that connected to the same network as that of the WPT Server.

To access the WPT Web portal:

1. Start Internet Explorer.
2. Enter <http://10.1.10.8/WPTWebApp/> in the address bar and click **Go**. The WPT Web Portal login page is displayed.

Note: if the default IP (10.1.10.8) of the WPT Server is changed, use the correct IP address of the WPT Server.

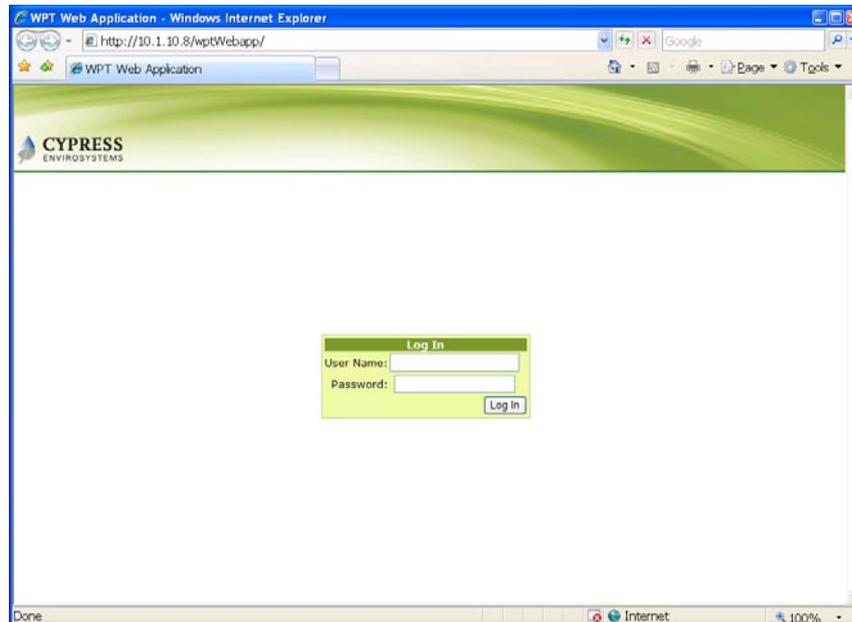


Figure 20- Logging to the WPT Web Portal

3. Enter username and password in the respective fields.
4. Click **Log In**.

3.1 Creating Network, Repeater, and Node IDs

Before installing the Hub, Repeaters and WPTs the installer should create the Network ID, Repeater IDs and Node IDs in the WPT Web Portal and use the same IDs for configuring the Hub, repeaters, and WPTs.

3.1.1 Creating network ID

To create a network ID:

1. Click the **Setup** tab in the WPT Web Portal.
The WPT Hub Configuration page is displayed.

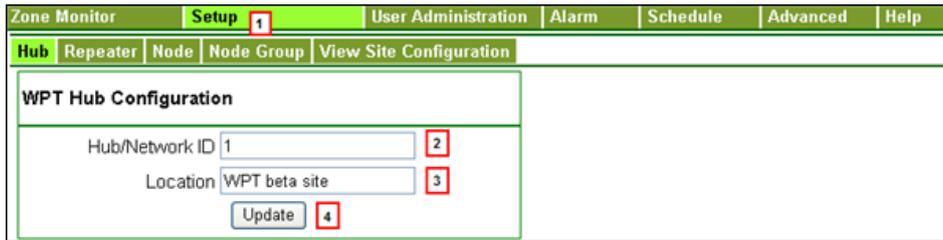


Figure 21 – Creating Network ID

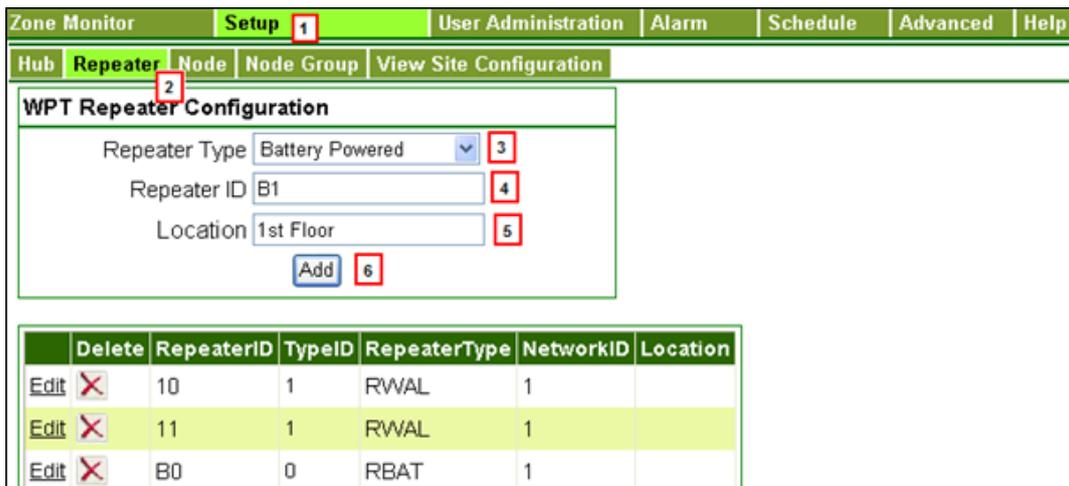
2. Enter a network or Hub ID in the **Hub/Network ID** field.
3. Enter a location in the **Location** field.
4. Click **Update**.

The newly added Repeaters appear in the table.

3.1.2 Creating Repeater ID

To create a Repeater ID:

1. Click the **Setup** tab in the WPT Web Portal.
 2. Click the **Repeater** tab.
- The WPT Repeater Configuration page is displayed.



Delete	RepeaterID	TypeID	RepeaterType	NetworkID	Location
Edit X	10	1	RWAL	1	
Edit X	11	1	RWAL	1	
Edit X	B0	0	RBAT	1	

Figure 22 – Creating Repeater ID

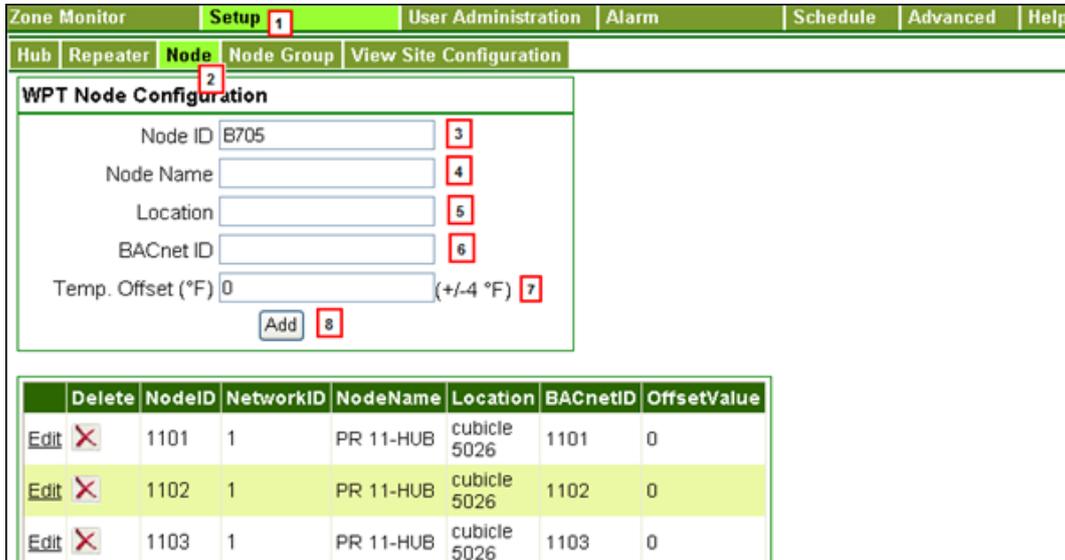
3. Select a repeater type using the **Repeater Type** drop-down menu.
4. Enter a repeater ID in the **Repeater ID** field.
5. Enter a location in the **Location** field.
6. Click **Add**.

3.1.3 Creating Node ID

To create a node ID:

1. Click the **Setup** tab in the WPT Web Portal.
2. Click the **Node** tab.

The WPT Node Configuration page is displayed.



Zone Monitor	Setup 1	User Administration	Alarm	Schedule	Advanced	Help
Hub	Repeater	Node 2	Node Group	View Site Configuration		
WPT Node Configuration						
Node ID	<input type="text" value="B705"/>	3				
Node Name	<input type="text"/>	4				
Location	<input type="text"/>	5				
BACnet ID	<input type="text"/>	6				
Temp. Offset (°F)	<input type="text" value="0"/>	7	(+/-4 °F)			
	<input type="button" value="Add"/>	8				
Delete	NodeID	NetworkID	NodeName	Location	BACnetID	OffsetValue
Edit <input type="button" value="X"/>	1101	1	PR 11-HUB	cubicle 5026	1101	0
Edit <input type="button" value="X"/>	1102	1	PR 11-HUB	cubicle 5026	1102	0
Edit <input type="button" value="X"/>	1103	1	PR 11-HUB	cubicle 5026	1103	0

Figure 23 – Creating Node ID

3. Enter a node ID in the **Node ID** field.
4. Enter a node name in the **Node Name** field.
5. Enter a location in the **Location** field.
6. Edit the BACnet Device Object ID of the WPT, if required.
7. Click **Add**.

The newly added nodes appear in the table.

4. Troubleshooting the WPT Server

Symptoms / Error	Solutions
Server not booting	Check if the power supply to the WPT server.
Not able to connect from the Laptop using the Remote Desktop Connection	Make sure the IP of the Laptop configured to be in same subnet of the WPT Server: 10.1.10.x
WPT USB Reader Application is not visible	<p>If the WPT USB Reader application is accidentally closed, it will restart automatically after one hour.</p> <p>To restart the USB reader application, double click on the "WPT_USBReader" icon on the WPT Server Desktop.</p> <p>Note: connect to the WPT Server using Remote Desktop or directly using Keyboard and monitor to access its desktop.</p>
Latest data not reflected on Web Pages	<p>Check and make sure the WPT USB Reader application is running.</p> <p>If problem persists, restart "WPT_DiagnosticService" service in the Microsoft Management Console. To access services, goto Start →Run, type "Services.msc", click OK.</p> <p>Note: connect to the WPT Server using Remote Desktop or directly using Keyboard and monitor to restart the services.</p>
ToD schedule is not functioning properly	<p>Restart "WPT_BackChannelDataService" service in the Microsoft Management Console. To access services, goto Start →Run, type "Services.msc", click OK.</p> <p>Note: connect to the WPT Server using Remote Desktop or directly using Keyboard and monitor to restart the services.</p>

<p>Alarm notification is not working</p>	<p>Check the user is configured with a valid email ID.</p> <p>If problem persists, restart "WPT_AlarmNotificationService" service in the Microsoft Management Console. To access services, goto Start →Run, type "Services.msc", click OK.</p> <p><u>Note:</u> connect to the WPT Server using Remote Desktop or directly using Keyboard and monitor to restart the services.</p>
<p>Some WPT Devices are not displayed while accessing from BACnet/IP</p>	<p>Restart "WPT BACnet Server" service in the Microsoft Management Console. To access services, goto Start →Run, type "Services.msc", click OK.</p> <p><u>Note:</u> connect to the WPT Server using Remote Desktop or directly using Keyboard and monitor to restart the services.</p>

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