Honeywell

Honeywell WLAN Secure Wireless Client (SWC)

For: Dolphin[®] 6100 Terminal with Windows[®] CE 5.0 Dolphin[®] 7600 Terminal with Windows[®] CE 5.0 Dolphin[®] 7600 Terminal with Windows Mobile[®] 6 Dolphin[®] 7850 Terminal with Windows Mobile[®] 5.0 Dolphin[®] 9900 Terminal with Windows Mobile[®] 6.1

User's Guide

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Configuring the WLAN Connection

Introduction

The WLAN Secure Wireless Client (SWC) configures the wireless connection of the 802.11b/g radio for numerous Dolphin terminals.

Windows Mobile 6	Windows Mobile 5.0	Windows CE 5.0
Dolphin 7600	Dolphin 7850	Dolphin 7600
Dolphin 9900		

The different operating systems format the application windows of the SWC differently. For example, on terminals running Windows CE, the tabs appear at the top of the window whereas on terminals running Windows Mobile, the tabs appear at the bottom of the window.

Windows Mobile



Windows CE



Despite the different formatting, the content of the application window is the same on both terminals.

Server-Assigned IP Addresses

Please note that all server-assigned IP addresses use Dynamic Host Configuration Protocol (DHCP).

Accessing the WLAN SWC

On the Today screen, tap the icon in the command bar 0.



This icon displays in different colors to indicate the status of the radio; see Command Bar Icon Colors on page 1-2.

The SWC opens displaying the Status tab, which is empty until a connection is configured. After a connection to an access point or network is configured and active, this tab displays the connection status.

Command Bar Icon Colors

The icon in the command bar on the Today screen 🕖 changes according to the status of the radio.

Color	Meaning	Matching Status
Gray	The radio is Disabled Idle Not connecting 	NO RADIO RADIO OFF DISCONNECTED INACTIVE
Yellow	 The connection is Associating (icon stops spinning) Authenticating (icon stops spinning) Negotiating DHCP address (icon spins clockwise) Out-of-Range 	ASSOCIATING AUTHENTICATING
Red	Authentication failed and the connection failed as a result.	ASSOCIATED (but not authenticated)
Green	The connection is authenticated with a valid DHCP address.	COMPLETE

Note: The color of the icons matches the statuses displayed on the Status Tab (see page 1-17).

Connection Status Indicator

The command bar contains a status strength indicator.



The bars indicate the strength of the signal when the radio is transmitting. If the radio is not transmitting, a small "x" appears over the bars.

Enabling the WLAN Radio Driver

The radio driver must be enabled for the radio to transmit a signal at all. You cannot connect to a network unless the radio is enabled.

For this Terminal Configuration,	Do this
Dolphin 6100/7600 with Windows CE	Tap Start > Settings > Control Panel > WLAN
5.0	Power.
Dolphin 7600 with Windows Mobile 6	Tap Start > Settings > Connections tab >
Dolphin 9900	Dolphin Wireless Manager.
Dolphin 7850	Tap Start > Settings > Connections tab > Radio Manager.

For details about enabling and disabling the radios on each terminal, refer to the User's Guide for each terminal, which are available for download from the web site: www.honeywellaidc.com.

Establishing a Connection

Requirements

The parameters you enter in the SWC depend entirely upon the wireless network established in your facility. If you do not know what to enter in these fields, contact your network administrator.

- 1. On the Today screen or Desktop, tap the icon in the command bar 0.
- 2. Tap the Config tab and tap New.



3. On the Network window, type in the **SSID**.

Setwork		a #	Ÿ _X ≼×	ok
SSID]
Assoc. Mode	none		•	

4. Select the Assoc. Mode that corresponds to your network configuration from the drop-down list.

Select	To connect with	For more information
None	No authentication or encryption.	None (page 1-8)
IEEE 802.1X (WEP)	WEP encryption and EAP authentication.	IEEE 802.1X (WEP) (page 1-9)
WPA-Personal (PSK) WPA2-Personal (PSK)	WPA encryption and PSK authentication.	WPA-Personal (PSK) & WPA2- Personal (PSK) (page 1-11)
WPA-Enterprise (EAP) WPA2-Enterprise (EAP)	WPA encryption and EAP authentication.	WPA-Enterprise (EAP) & WPA2-Enterprise (EAP) (page 1-12)

Note: The Dolphin 6100/7600 with Windows CE 5.0 supports WPA2 encryption only.

- 5. The fields and options required by the association mode, encryption, and EAP methods appear on the Network Window (see page 1-8) after each is selected.
- 6. If required by the association mode, select the Encryption method.
- 7. If required by the association mode, select the EAP Method; (see page 1-9).

- 8. If required or desired, enter keys or passwords.
- 9. Tap **OK**. You are returned to the Config tab where the SSID now appears in the list.
- 10. Select the device in the list and tap **Activate**. The configuration activates and the Dolphin terminal attempts to connect to the network according to the parameters you entered.



11. The Status tab appears displaying the connection status.

🏞 wi	LAN SWI	C	a) #2 (Ÿ _× ∢×	ok
Current	Channel	4				
Current	Tx Rate	1 N	1b/s	Reco	onnect	
RSSI		-49	lbm			
Status	C	OMPLE	ETED			
SSID	d	lolphin9	9900			
BSSID	C	0:18:e	7:12:	4e:5a		
Authent	ication 🖡	IONE				
Encrypti	on 🖪	IONE				
IP Addre	ess 1	92,168	3.1.11	.0		
Status	Config	IP	Adva	anced	About	

Config Tab

You manage connections and configurations on the Config tab. You also determine which configuration the terminal uses to connect.

a 🖬 🖬	× × ok
Ac	tivate
1	New
M	odify
D	elete
S	ican
Advanced	About

Activating the Configuration

To connect, you **must** select the configuration in the list and tap **Activate**. The terminal will not attempt to connect until you tap **Activate**.

The Config tab stores all the configurations you have created in the list but activates only one configuration at a time. To switch connections, simply select it on the Config tab and tap **Activate**.

On the Config tab, an "[x]" appears next to the activated configuration.

Config Tab Buttons

Modify	To modify an existing configuration, select it in the list and tap Modify . The Network window appears displaying the data for the selected configuration. Make your changes and tap OK to save. Then, tap Activate to start connecting.
Add	To manually add a connection, tap Add . A blank Network window appears. Complete Steps 5–8 of Establishing a Connection (see page 1-4).
Delete	To delete a connection, select it in the list and tap Delete .

Using the Scan Feature

The Scan button on the Config tab queries for the local, configured, wireless network for devices in range of the terminal. when you tap **Scan** on the Config tab, the query starts, and the results appear on the

Scan window appears.

👌 Scan	a) #* Y _× ≪	ok
SSID	Signal	Flags	E
kojak	-54	[WPA-PSK	- 1
CRESTRON	-58	[WPA-PSK	C
dolphin9900 Free Public WiFi linksys a tsunami Rangetest CEADHOC	-50 -55 -56 -58 -68 -68 -76	[IBSS] [IBSS]	
 <u>A</u> dd	I <u>R</u> escan		•

Buttons

Add	Tap this button after you've selected an item in the list. It opens the Network Window (see page 1-8) so that you can configure the connection.
Rescan	Tap this button to rescan the wireless network if you don't see the device you're looking for in the list.
Close	Tap this button to close the Scan window and return to the Config Tab.
Columns	
SSID	Displays the SSID of the device. (This is the name of the device you are connecting to.)
Signal	Displays the signal in dBMs.
Flags	Displays the association mode and encryption required to connect to the device.
	SSIDSignalFlagsCrestron-64[WPA-PSK-TKIP]hhpds-49[WEP]
BSSID	Displays the full BSSID. (This is the MAC address of your terminal.)
Channel	Displays the channel in kHz.

Network Window

The Network window contains the configuration options to configure how the terminal connects to your wireless network.

You access the Network window from the Config Tab (see page 1-6) by

• Tapping New on the Config tab.

No Authentication or

• Scanning for wireless network devices and adding them to your network; see Using the Scan Feature on page 1-6.

WEP

• Selecting an existing configuration and tapping Modify.

The Network window prompts you to complete the fields required by the connection options you select. For example,

WPA (EAP)

Encryption						
🌮 Network 🛛 🖪 📰 Ÿx ◀× ok	Setwork	a # Y _x ∢×	ok 🛃	Network	(8	
SSID AP_101	SSID WEF	1	▲ 5:	5ID	AP_101	
Assoc. Mode none 👻	Assoc. Mode WP/	A-Enterprise (EAP) 🛛 🔻	A	ssoc. Mode	WEP	-
	Encryption TKIF	•	E	ncryption	OPEN	•
	EAP Method FAS	T-MSCHAPV2 🗸	K	ey Length	64 bits	() 128 bits
	Identity			ey Type	ASCII	Š
	Password		=		I ASCII	
	Prompt Id/Pass	wd When Connecting) Key 1		
	Anony ID) Key 2) Key 3		
	CA Cert.) Key 4		
	Tunnel PAC		Ц ^с	· · ·		
OK Cancel	Machine PAC				<u>O</u> K	Cancel
<u>O</u> K <u>C</u> ancel	Provisioning	•	-			

(Use the Browse button with to load files located on the terminal into this configuration.)

Association Modes

The association mode you select from the Assoc. Mode drop-down list determine the fields that appear on the Network window. Different types of association modes require specific information or offer certain configuration options.

The available association modes are:

- None (see page 1-8)
- WEP (see page 1-10)
- IEEE 802.1X (WEP) (see page 1-9)
- WPA-Personal (PSK) & WPA2-Personal (PSK) (see page 1-11)
- WPA-Enterprise (EAP) & WPA2-Enterprise (EAP) (see page 1-12)

Note: The Dolphin 6100/7600 with Windows CE 5.0 supports WPA2 encryption only.

None

Selecting **None** as the association mode means that there is authentication or encryption in the connection process.

IEEE 802.1X (WEP)

Available EAP Methods

IEEE 802.1X (WEP) (page 1-9) and WPA-Enterprise (EAP) & WPA2-Enterprise (EAP) (page 1-12) support the following EAP methods:

- LEAP
- PEAPv0-MSCHAPV2
- PEAPv1-MSCHAPV2
- PEAPv1-GTC
- PEAPv1-TLS
- FAST-MSCHAPV2
- FAST-GTC
- FAST-TLS
- TLS
- TTLS-MD5
- TTLS-MSCHAPV2
- TTLS-GTC

Completing the EAP Fields

Depending on the EAP method selected, the following fields (may) appear or disappear based on what the selected protocol requires or offers for its configuration:

Field	Description
Identity	This is the 802.1X identity supplied to the authenticator. The identity value can be up to 63 ASCII characters and is case-sensitive.
Password	This is the password used for MD5-Challenge or EAP authentication. It may contain up to 63 ASCII characters and is case-sensitive. Asterisks appear instead of characters for enhanced security.
Anonymous ID	Enter the anonymous ID. This ID creates a tunnel through which the real ID (as entered in the Identity field) can pass. For additional security, make this ID different than the one entered in the Identity field.
CA Cert. & Client Cert. CA Cert. Client Cert.	 Tap the Browse button to load a CA or Client certificate located on the terminal
Private Key	Tap the Browse button to load a private key located on the terminal
Priv Key Pass	If you have loaded a private key, enter the password that unlocks the private key.

Field	Description
Tunnel PAC &/or Machine PAC	Tap the Browse button to load a tunnel and/or machine PAC located on the terminal
Provisioning	 Provisioning refers to service activation and involves programming various network databases with the customer's information. Select the provisioning method from the following options: No Provisioning Anonymous Authenticated Anonymous + Authenticated

WEP

When you select WEP as the association mode, you can select Open or Shared **Encryption** and enter your keys.

	a # 7 _× ∢× ok
SSID	AP_101
Assoc. Mode	WEP <
Encryption	OPEN 🗸
Key Length	64 bits 128 bits
Кеу Туре	● ASCII ○ HEX
🖲 Key 1	
() Key 2	
○ Key 3	
🔾 Key 4 🗌	
	<u>O</u> K <u>C</u> ancel

WPA-Personal (PSK) & WPA2-Personal (PSK)

Setwork	a 🗱 🏹 🕯	ok
SSID	TEST	
Assoc. Mode	WPA-Personal (PSK) 🔹 🔻	
Encryption	TKIP 👻	
PSK		
Use 8 to 63 ch HEX	ars for ASCII or 64 digits for	

<u>O</u>K <u>C</u>ancel

Note: The Dolphin 6100/7600 with Windows CE 5.0 supports only WPA2 encryption.

Supported Encryption Methods

- TKIP
- AES-CCMP
- TKIP+CCMP

PSK (Pre-Shared Key)

The PSK field is where you enter the pre-shared key. This field accepts ASCII keys between 8–63 characters long. A hexadecimal PSK can also be entered instead of an ASCII key. Hexadecimal PSKs must be exactly 64 characters and can only contain hexadecimal digits (A–F, 0–9).

Characters are visible the first time you enter them in this field; however, those characters will appear as asterisks (*) the next time this configuration is opened.

Secret passwords or encryption keys are entered into both sides of the message exchange ahead of time. Preshared keys (PSK) are typed into the clients and servers (authentication servers, access points, etc.).

WPA-Enterprise (EAP) & WPA2-Enterprise (EAP)

Network	a 🛱 🍾 🔶	¢	ok
SSID	TEST		
Assoc. Mode	WPA-Enterprise (EAP)	•	
Encryption	ТКІР	-	
EAP Method	LEAP •	-	
Identity			
Password			
Prompt Id/	Passwd When Connecting		

<u>O</u> K	<u>C</u> ancel

Note: The Dolphin 6100/7600 with Windows CE 5.0 supports only WPA2 encryption.

Supported Encryption Methods

- TKIP
- AES-CCMP
- TKIP+CCMP

Available EAP Methods

The following EAP methods are supported:

- LEAP
- PEAPv0-MSCHAPV2
- PEAPv1-MSCHAPV2
- PEAPv1-GTC
- PEAPv1-TLS
- FAST-MSCHAPV2
- FAST-GTC
- FAST-TLS
- TLS
- TTLS-MD5
- TTLS-MSCHAPV2
- TTLS-GTC

For details, see Completing the EAP Fields on page 1-9.

The checkbox under the Password field prompts the user to the SSID and password every connection attempt.

Common Configurations

This section contains some of the most common network configurations in detail, including:

- WEP (see page 1-13)
- PEAPv1-MSCHAPV2 (see page 1-14)
- WPA-PSK (see page 1-14)

WEP

When you select WEP as the association mode, you can select Open encryption for no authentication or encryption or Shared encryption to authenticate via a specific key.

- 1. On the Today screen, tap the icon in the command bar 0.
- 2. Tap the Config tab.
- 3. Tap New.
- 4. On the Network window, type in the SSID.
- 5. Select **WEP** as the **Assoc. Mode**.
- 6. You have a choice of **Encryption** methods:

Encryption=OPEN

Network	a # Y _× ∢× ok
SSID	AP_101
Assoc. Mode	WEP 🗸
Encryption	OPEN 👻
Key Length Key Type	 64 bits 128 bits ASCII HEX
🖲 Key 1	
() Key 2	
○ Key 3	
О Кеу 4	

Encryption=SHARED

Network	:a # Y _× ∢× ₀	k
SSID	AP_101	
Assoc. Mode	WEP 🔻	
Encryption	SHARED 👻	
Key Length	64 bits 128 bits	
Кеу Туре	ASCII O HEX	
🖲 Key 1		
○ Key 2		
○ Key 3		
() Key 4		

- In fields Key 1—Key 4, enter the key. The format of each key *must match* the Key Length and Key Type you selected in Step 6. The SWC validates the key length and will not let you save a key in the wrong format. To use dynamic keys in your configuration, leave all the key fields blank.
- Tap **OK** and you are returned to the Config tab.
- 7. On the Config tab, select the network in the list and tap Activate.
- 8. The terminal begins connecting.
- 9. When connected, the Status Tab (page 1-17) appears displaying the results.

PEAPv1-MSCHAPV2

- 1. On the Today screen, tap the icon in the command bar 0.
- 2. Tap the **Config** tab.
- 3. Tap **New**.
- 4. On the Network window, type in the **SSID**.
- 5. Select IEEE 802.1X (WEP) as the Assoc. Mode.
- 6. Select **PEAPv1-MSCHAPV2** as the **EAP Method**.
- 7. Enter the **Identity** (see page 1-9) and **Password** (see page 1-9).
- If you want to, you can enter an Anonymous ID (see page 1-9) or a CA or Client certificate (see page 1-9). (If you selected PEAPv1-TLS, you can also load a Private Key (page 1-9) and enter a private key password.)
- 9. Tap **OK** and you are returned to the Config tab.
- 10. On the Config tab, select the network in the list and tap Activate.
- 11. The terminal begins connecting.
- 12. When connected, the Status tab (see page 1-17) appears displaying the results.

WPA-PSK

- 1. On the Today screen, tap the icon in the command bar \underline{U} .
- 2. Tap the **Config** tab.
- 3. Tap **New**.
- 4. On the Network window, type in the **SSID**.
- 5. Select **WPA-Personal (PSK)** as the **Assoc. Mode**.
- 6. Select the Encryption method (TKIP, AES-CCMP, or TKIP + CCMP).
- 7. Enter the pre-share key (see page 1-11) in the **PSK** field.
- 8. Tap **OK** and you are returned to the Config tab.
- 9. On the Config tab, select the network in the list and tap Activate.
- 10. The terminal begins connecting.
- 11. When connected, the Status Tab (page 1-17) appears displaying the results.

Static IP

You establish a static IP through the radio driver, not the SWC. After the static IP address is established in the radio driver, you configure your wireless connection in SWC as usual.

Setting up a Static IP on Windows Mobile-based devices (7600, 7850 and 9900)

1. Tap Start > Settings > Connections tab > Network Cards.



- 2. Tap on the network adapter. The radio driver will begin "SWC IM" followed by the radio driver name in parentheses.
- 3. The IP address tab opens. Select Use specific IP address.



- a. Enter the IP address:
- b. Enter the Subnet mask:
- c. Enter the Default gateway:
- 4. Tap **OK**.
- 5. Open the SWC and configure the wireless connection.

Setting up a Static IP on Windows CE 5.0 (6100/7600)

- 1. Tap Start > Control Panel > Network and Dial-up Connections.
- 2. Double-tab the radio driver.



3. The radio driver opens displaying the IP Address tab. Select Specify an IP address.



- a. Enter the IP address:
- b. Enter the Subnet mask:
- c. Enter the Default gateway:
- 4. Tap **OK**.
- 5. Open the SWC and configure the wireless connection.

Status Tab

The Status tab displays the connection status of the current, activated connection; see Activating the Configuration on page 1-6.

If the radio is enabled and a radio configuration is activated, the Status tab opens when you tap the icon on the Today screen 🔜 displaying the status of the current connection.

😝 WLAN SWC 💿 a 📰 🏹 🖈 ol					ok	
Current	Current Channel 4					
Current	Tx Rate	1	1b/s	Rec	onnect	
RSSI		-49 0	lbm			
Status	0		ETED			
SSID	c	lolphin9	9900			
BSSID	C)0:18:e	7:12:	4e:5a		
Authent	ication 🖡	IONE				
Encryption NONE						
IP Address 192.168.1.110						
Status	Config	IP	Adva	anced	About	

Reconnect

The Reconnect button reconnects to the network after a disconnection.

Status Status O	DMPLETED
NO RADIO	The SWC does not recognize the WLAN radio driver.
RADIO OFF	The radio is not enabled.
DISCONNECTED	The radio connection is disconnected.
INACTIVE	There are either no profiles or there are no activated profiles on the Config tab.
ASSOCIATING	The terminal connection is associating.
ASSOCIATED	The terminal connection is associated.
AUTHENTICATING	Authentication is in process.
COMPLETE	The connection is associated, authentication completed successfully, and active.

BSSID

The BSSID is the MAC address of the terminal.

Working in Ad Hoc Mode

Introduction

Most installed wireless LANs today use "infrastructure" mode that requires the use of one or more access points. With this configuration, the access point provides an interface to a distribution system (e.g., Ethernet), which enables wireless users to utilize corporate servers and Internet applications.

As an optional feature, however, the 802.11 standard specifies "ad hoc" mode, which allows the radio network interface card (NIC) to operate in what the standard refers to as an independent basic service set (IBSS) network configuration. With an IBSS, there are no access points. User devices communicate directly with each other in a peer-to-peer manner.

Even though it is a peer-to-peer connection, there must still be a host and a client; a host to initiate an ad hoc connection and a client to join an existing ad hoc connection.

Requirements

Both peer devices must have static IPs with the same Default Gateway. Therefore, you must set up a static IP on the terminal; see Setting up a Static IP on page 2-1.

Setting up a Static IP

1. After the CAB file is removed on the terminal, tap **Start** > **Settings** > **Connections** tab > **Network Cards**.



2. Select the radio driver whose name begins "SWC IM;" the driver's name is in parentheses.

3. Select Use specific IP address and complete the remaining fields.

Settings		a	#	Ÿ _X ≼×	ok
SWC IM (GSP1868	861)				
O Use server-ass	igne	d IP	add	lress	
🖲 Use specific IP) add	ress			
IP address:]
Subnet mask:					
Default gateway:]

IP Address	Name Servers	
------------	--------------	--

- **IP address:** The IP address should be the same as the peer device but can be different as long as the default gateway is the same as the peer device.
- **Subnet mask:** The subnet mask should be the same as the peer device but can be different from the peer device as long as the default gateway is the same as the peer device.
- Default gateway: The default gateway must be the same as the peer device.
- 4. Tap OK to save.
- 5. Press and hold **Red** and **ESC** by to warm boot the device. You must warm boot the device to apply the radio driver change to the operating system.

Initiating an Ad Hoc Connection

You need to set up an ad hoc profile in the SWC.

- 1. Tap the icon in the command bar \mathbf{O} .
- 2. Tap the **Config** tab and tap **New**.
- 3. On the Network window, select Ad Hoc or Ad Hoc (WEP) as the Assoc Mode.
- 4. In the **SSID** field, enter the static IP address of the peer.
- 5. Tap **OK**.
- 6. On the Config tab, select the name of the profile (the SSID name) and tap **Activate** to launch the connection.

Overview

You can use the DeviceConfig Power Tool to configure the SWC. Simply configure the DeviceConfig.exm file with the SWC's settings, save it to the \IPSM\Autoinstall folder and cold boot the Dolphin terminal. When you enable the WiFi radio, the SWC will connect according to the settings in the DeviceConfig.exm file.

Configuring the DeviceConfig.exm File

On your workstation or your terminal, open the DeviceConfig.exm file in EZConfig. The following instructions show the workstation method.

1. Click Start > All Programs > Honeywell > Dolphin Power Tools and Demos > EZConfig Editor.

🛅 Device Image	💼 Dolphin Power Tools and Demos	×
👯 EZConfig Editor	💼 Image Kiosk Power Tools	×
🖄 Hand Held Products Demos Guide		
ங Hand Held Products Power Tools Guide		

- 2. Tap the **Open** icon **E** and select the DeviceConfig.exm file.
- Right-click and select Enable on the following sections: Radio Manager > WiFi > Security > Supplicant > Profile 1. The WiFi section is disabled by default. Enabling this section turns the 802.x radio on at startup.
- 4. Select the **Profile 1** section.



in the Profile 1 section match the field on the Network Window (see page 1-8). Doubletap on each key value you want to configure and select the desired configurations from

the drop-down list.

SpeviceConfig.exm - EZConfig Editor					
File Edit View Tools Hel	lр				
E- 💼 DeviceConfig	^	Key	Value		
Connections Beam Radio Manager Radio Manager MiFi Guide Scutty Guid		SSID Assoc Mode Encryption EAP Method PSK I Identity Password Anonymous ID Tunnel PAC Machine PAC Machine PAC Provisioning CA Certificate	None Open FAST-MSCHAPV2 FAST-MSCHAPV2 FAST-GTC FAST-GTC PEAP-0-MSCHAPV2 PEAP-1-MSCHAPV2 PEAP-1-GTC PEAP-1-GTC PEAP-1-STC		

- 6. The items in each drop-down list are the same as the items in the drop-down lists on the Network Window (see page 1-8).
- 7. Select or enter all the items required by your configuration.
 - a. For Tunnel PAC, Machine PAC, and CA and Client Certificate keys, enter the exact path on the terminal where the PAC and certificate files are located.

1 dooriord	· · · · · · · · · · · · · · · · · · ·	the production of the second se	
Tunnel PAC	CA Certificate		
Machine PAC	Client Cartificate		

The PAC and certificate files **must** be saved on the terminal first!

b. If your configuration uses WEP, select the key type from the drop-down list.

WEP Key Mode	64bit ASCII
WEP Key1	64bit ASCII
WEP Key2	128bit ASCII
WEP Key3	64bit HEX
WEP Key4	128bit HEX

Key validation does not occur when you enter the key in WEP Key1–4 but does occur when the DeviceConfig.exm file is activated on the terminal.

8. Save the DeviceConfig.exm file on your workstation for future reference and close.

Setting up the Terminal

- 1. Move the configured DeviceConfig.exm file to the \IPSM\Autoinstall folder on the Dolphin terminal.
- 2. Cold boot the terminal.
- 3. The SWC should start connecting using the DeviceConfig settings during Autoinstall.
- 4. After Autoinstall in complete, tap the SWC icon on the Today screen \bigcirc .
- 5. Verify that the configuration is connected and correct.

Enabling a Profile

You can have multiple profiles in the SWC section; however, one needs to be selected as the default configuration so that the configuration connects when the terminal boots up.

To select a default configuration, enter the name of the profile as the Value in the Active Profile key of

the SWC section

SDeviceConfig.exm - EZC	Config Editor
File Edit View Tools He	elp
🖃 💼 DeviceConfig	🔨 Key Value
🖻 💼 Connections	Active Profile Profile1
🛅 Beam	
🖻 🚞 Radio Manager	
📄 💼 WiFi	
🖻 💼 Security	
E Supplicant	

Changing Power Save Mode

Power Save Mode is enabled in the radio by default.

SeviceConfig.exm - EZConfig Editor					
File Edit View Tools	Help				
🖃 💼 Radio Manager	~	Key	Value		
🚊 🚔 WiFi		Enable	On		
TCPIP		PowerMode	Always On		
🖻 - 🧰 Security		EPSParm			
🗐 👘 💼 Supplicant		DriverName	DSFLTR_SDI086861		

If you are going to DeviceConfig.exm to configure the WLAN Supplicant, make sure that Power Save Mode is sent to **Always On**.

Administrative Tools

Overview

The SWC offers a number of tools to help you administer your network configurations.

IP Tab

The IP tab enables you to view statistics about the terminal and active network connection.

🎊 WLAN SWC	a # Y _x ∢× ok
IP Address:	192.168.1.110
Subnet Mask:	255.255.255.0
Gateway Address:	192.168.1.1
DHCP Server:	192.168.1.1
Lease Obtained:	11:58:56 07/17/2008
Lease Expires:	11:58:56 07/24/2008
System Time:	12:28:04 07/17/2008
MAC Address:	00:16:41:f8:62:ac
Device Name:	ID07001D0003
DNS Servers:	127.0.0.1
Primary Wins Serve	r:
Regulatory Domain:	: ETSI
Release IP	Renew IP
Status Config I	P Advanced About

Release IPTap this button to release the current IP address (usually assigned by DHCP).Renew IPTap this button to obtain a new IP address from the DHCP server.

Advanced Tab

The Advanced tab runs several reports that allow you to monitor the background processing of the SWC. In addition, you can also execute certain commands.

	NUAN SWC	a # Y _× ∢×	Tap Run.
Select the report from the drop-down list.	STATUS-VERBOSE	▼ Run	
	==> STATUS-VERBOSE bssid=00:18:e7:12:4e:5a ssid=dolphin9900 id=0 pairwise_cipher=NONE group_cipher=NONE key_mgmt=NONE rssi=-49 channel=4 tx_rate=1 dns_server=127.0.0.1 device_name=ID07001D0 cur_ip_address=192.168	0003	The results display below.

About

Advanced

The SWC supports the following reports and commands:

Status | Config | IP

- STATUS (see page 4-3)
- STATUS_VERBOSE (see page 4-3)
- SCAN (see page 4-3)
- SCAN_RESULTS (see page 4-3)
- LIST_NETWORKS (see page 4-4)
- SELECT_NETWORK (see page 4-4)
- ENABLE_NETWORK (see page 4-4)
- SAVE_CONFIG (see page 4-4)
- DISCONNECT (see page 4-4)
- REASSOCIATE (see page 4-4)
- DHCP release (see page 4-4)
- DHCP renew (see page 4-4)
- RADIO off (see page 4-4)
- RADIO off (see page 4-4)

STATUS

STATUS queries and retrieves current WPA/EAPOL/EAP status information.

For example:

bssid=02:00:01:02:03:04 ssid=test network pairwise_cipher=CCMP group_cipher=CCMP key_mgmt=WPA-PSK wpa_state=COMPLETED ip_address=192.168.1.21 Supplicant PAE state=AUTHENTICATED suppPortStatus=Authorized EAP state=SUCCESS

STATUS_VERBOSE

STATUS_VERBOSE is the same as STATUS with more verbosity (i.e., more variable=value pairs).

For example:

```
bssid=02:00:01:02:03:04
ssid=test network
id=0
pairwise cipher=CCMP
group_cipher=CCMP
key_mgmt=WPA-PSK
wpa_state=COMPLETED
ip_address=192.168.1.21
Supplicant PAE state=AUTHENTICATED
suppPortStatus=Authorized
heldPeriod=60
authPeriod=30
startPeriod=30
maxStart=3
portControl=Auto
Supplicant Backend state=IDLE
EAP state=SUCCESS
reqMethod=0
methodState=NONE
decision=COND_SUCC
ClientTimeout=60
```

SCAN

Performs a new BSS scan.

SCAN_RESULTS

Displays the latest scan results. Fields are separated with by a "/" character.

For example:

```
bssid / channel / signal level / flags / ssid
00:09:5b:95:e0:4e 2412 208 [WPA-PSK-CCMP] jkm private
02:55:24:33:77:a3 2462 187 [WPA-PSK-TKIP] testing
00:09:5b:95:e0:4f 2412 209 jkm guest
```

LIST_NETWORKS

Lists configured networks. Fields are separated by a "/" character.

For example:

network id / ssid / bssid / flags
0 example network any [CURRENT]

SELECT_NETWORK

Selects a network (disable others). Network ID can be received from the LIST_NETWORKS (page 4-4) command output.

ENABLE_NETWORK

Enables a network. Network ID can be received from the LIST_NETWORKS (page 4-4) command output.

REMOVE_NETWORK

Removes a network. Network ID can be received from the LIST_NETWORKS (page 4-4) command output.

SAVE_CONFIG

Saves the current configuration.

DISCONNECT

Disconnects and wait for REASSOCIATE command before connecting.

REASSOCIATE

Forces the current connection to reassociate.

DHCP release

Releases the current IP address. Running this command performs the same function as tapping **Release IP** on the IP Tab (page 4-1).

DHCP renew

Contacts the DHCP server to obtain a new IP address. Running this command performs the same function as tapping **Release IP** on the IP Tab (page 4-1).

RADIO off

Disables the WLAN radio.

DEBUG on

Enables debug mode.

DEBUG off

Enables debug mode.

Technical Assistance

If you need assistance installing or troubleshooting your device, please call your distributor or the nearest technical support office:

North America/Canada

Telephone: (800) 782-4263 Fax number: (315) 554-6705 *E-mail: natechsupport@honeywell.com*

Latin America

Telephone: (803) 835-8000 Telephone: (800) 782-4263 *E-mail: latechsupport@honeywell.com*

Brazil

Telephone: +55 (21) 3535-9100 Fax: +55 (21) 3535-9105 *E-mail: brsuporte@honeywell.com*

Mexico

Telephone: (803) 835-8000 E-mail: latechsupport@honeywell.com

Europe, Middle East, and Africa

Telephone: +31 (0) 40 7999 393 Fax: +31 (0) 40 2425 672 *E-mail: eurosupport@honeywell.com*

Asia Pacific

Telephone - Hong Kong: +852-3188-3485 or 2511-3050 Telephone - China: +86 21 6361 3818 *E-mail: aptechsupport@honeywell.com*

Japan

Telephone: +813-3839-8511 E-mail: aptechsupport@honeywell.com

Malaysia

Telephone: +603-6201-7020 E-mail: aptechsupport@honeywell.com

Online Technical Assistance

You can also access technical assistance online at www.honeywellaidc.com.

Honeywell

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