# **Wireless Switch 5000**

Quick Setup Guide WS 5000 Wireless Switch Version 1.1.4.30

> 72E-66722-01 Revision A

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### Patents

This produc	ct is covered	by one or n	nore of the f	ollowing U.S	. and foreig	n Patents: U	.S.
Patent No.	4,593,186;	4,603,262;	4,607,156;	4,652,750;	4,673,805;	4,736,095;	4,758,717;
4,760,248;	4,806,742;	4,816,660;	4,845,350;	4,896,026;	4,897,532;	4,923,281;	4,933,538;
4,992,717;	5,015,833;	5,017,765;	5,021,641;	5,029,183;	5,047,617;	5,103,461;	5,113,445;
5,130,520;	5,140,144;	5,142,550;	5,149,950;	5,157,687;	5,168,148;	5,168,149;	5,180,904;
5,216,232;	5,229,591;	5,230,088;	5,235,167;	5,243,655;	5,247,162;	5,250,791;	5,250,792;
5,260,553;	5,262,627;	5,262,628;	5,266,787;	5,278,398;	5,280,162;	5,280,163;	5,280,164;
5,280,498;	5,304,786;	5,304,788;	5,306,900;	5,324,924;	5,337,361;	5,367,151;	5,373,148;
5,378,882;	5,396,053;	5,396,055;	5,399,846;	5,408,081;	5,410,139;	5,410,140;	5,412,198;
5,418,812;	5,420,411;	5,436,440;	5,444,231;	5,449,891;	5,449,893;	5,468,949;	5,471,042;
5,478,998;	5,479,000;	5,479,002;	5,479,441;	5,504,322;	5,519,577;	5,528,621;	5,532,469;
5,543,610;	5,545,889;	5,552,592;	5,557,093;	5,578,810;	5,581,070;	5,589,679;	5,589,680;
5,608,202;	5,612,531;	5,619,028;	5,627,359;	5,637,852;	5,664,229;	5,668,803;	5,675,139;
5,693,929;	5,698,835;	5,705,800;	5,714,746;	5,723,851;	5,734,152;	5,734,153;	5,742,043;
5,745,794;	5,754,587;	5,762,516;	5,763,863;	5,767,500;	5,789,728;	5,789,731;	5,808,287;
5,811,785;	5,811,787;	5,815,811;	5,821,519;	5,821,520;	5,823,812;	5,828,050;	5,848,064;
5,850,078;	5,861,615;	5,874,720;	5,875,415;	5,900,617;	5,902,989;	5,907,146;	5,912,450;
5,914,478;	5,917,173;	5,920,059;	5,923,025;	5,929,420;	5,945,658;	5,945,659;	5,946,194;
5,959,285;	6,002,918;	6,021,947;	6,029,894:	6,031,830;	6,036,098;	6,047,892;	6,050,491;
6,053,413;	6,056,200;	6,065,678;	6,067,297;	6,082,621;	6,084,528;	6,088,482;	6,092,725;
6,101,483;	6,102,293;	6,104,620;	6,114,712;	6,115,678;	6,119,944;	6,123,265;	6,131,814;
6,138,180;	6,142,379;	6,172,478;	6,176,428;	6,178,426;	6,186,400;	6,188,681;	6,209,788;
6,209,789;	6,216,951;	6,220,514;	6,243,447;	6,244,513;	6,247,647;	6,308,061	6,250,551;
6,295,031;	6,308,061;	6,308,892;	6,321,990;	6,328,213;	6,330,244;	6,336,587;	6,340,114;
6,340,115;	6,340,119;	6,348,773;	D305,885;	D341,584;	D344,501;	D359,483;	D362,453;
D363,700;	D363,918;	D370,478;	D383,124;	D391,250;	D405,077;	D406,581;	D414,171;
D414,172;	D418,500;	D419,548;	D423,468;	D424,035;	D430,158;	D430,159;	D431,562;
D436,104.							

Invention No. 55,358; 62,539; 69,060; 69,187 (Taiwan); No. 1,601,796; 1,907,875; 1,955,269 (Japan); European Patent 367,299; 414,281; 367,300; 367,298; UK 2,072,832; France 81/03938; Italy 1,138,713 (3/02)

### **Configuring the WS 5000 and Applying a WEP-128 Policy**

Before using this quick setup guide, be sure to complete the tasks in the WS 5000 Wireless Switch Quick Install Guide (QIG).

This document is written for the network installer or administrator who is familiar with their Ethernet IP network but who is not necessarily trained on Symbol Technologies equipment. The goal of this document is to show this user how to: (1) Connect the WS 5000 in a basic, flat switch network topology and verify that it is properly connected, (2) Configure the WS 5000 to support the network topology and (3) Apply a basic WEP 128 policy.



Figure 1: The WS 5000 Setup Steps

When the user has completed this setup guide, the WS 5000 switch will be able to support their WLAN with the basic, minimum configuration recommended by Symbol Technologies, Inc. The time required to complete these three steps is normally less than an hour.

## Step 1: Connecting the WS 5000 to the Network

This step should take less than 15 minutes to complete.

Refer to Figure 2 for cabling details and specific device configurations (required for the ping test). All the wireless LAN (WLAN) devices are connected to Layer-2 switch A and all the wired LAN devices are connected to Layer-2 switch B. Connect Layer-2 switch A to Ethernet port 1 on the WS 5000 (labeled WLAN 0) to connect the wireless traffic, and connect Layer-2 switch B to Ethernet port 2 on the WS 5000 (labeled LAN 1) to connect the wired LAN traffic.



Figure 2: The Network Topology

### Verifying the Connections

If the WS 5000 is connected correctly, devices on the wireless LAN should be able to connect to devices on the LAN. To test the connection between the wireless client device and the computer shown in Figure 2, from the wireless client, enter:

```
C:> ping xxx.xxx.xxx.yyy

PING xxx.xxx.xxx.yyy (xxx.xxx.xyy): 56 data bytes

64 bytes from xxx.xxx.xxyy: icmp_seq=0 ttl=127 time=0.39 ms

64 bytes from xxx.xxx.xxx.yyy: icmp_seq=1 ttl=127 time=0.327 ms

64 bytes from xxx.xxx.xxx.yyy: icmp_seq=2 ttl=127 time=0.33 ms

64 bytes from xxx.xxx.xxx.yyy: icmp_seq=3 ttl=127 time=0.309 ms

--- xxx.xxx.xxx.yyy ping statistics ---

4 packets transmitted, 4 packets received, 0% packet loss

round-trip min/avg/max = 0.309/0.338/0.39 ms

C:>
```

Because the wireless client was able to connect to a computer on the network through the switch, the network connections are functioning properly. If the ping test fails, make sure the target computer is turned on, connected to the network, and is configured with the IP address used in the ping.

# **Step 2: Initial Configuration Using the CLI**

This step should take less than 10 minutes to complete.

Note: In this guide, MAC and IP addresses have been changed to protect actual devices from unauthorized access.

To configure the WS 5000 with site-specific IP addressing and network policies, connect the administrative PC to the WS 5000 with the serial cable (as discussed in the QIG). Once the basic WS 5000 network configuration is complete, administrators can create a policy as discussed in "Basic WS 5000 Configuration."

The terminal emulation window will display the Wireless Switch login screen (if the login prompt does not display, press <Enter> until the Command Line Interface (CLI) appears:

Wireless Switch... userid:

Enter admin at the userid prompt:

```
userid:admin<enter>
```

Enter symbol at the password prompt:

password:symbol<enter>

The system displays the following:

```
Retrieving user and system information...

Setting user permissions flags..

Checking KDC access permissions...

Welcome...

System information...

System Name : WS5000

Descriptions : WS 5000 Wireless Network

Software Ver. : 1.1.4.30

Licensed to : Symbol Technologies

Copyright : Copyright (c) 2000-2003. All rights reserved.

Serial Number : 00A0xxxxxxx

Number of Licenses : 30

Max Access Port : 30

Max Mobile Clients : 4096

Active Switch Policy : Default Wireless Switch Policy

Emergency Switch Policy : Not defined

Switch Uptime : 00d:00h:00m

# of Unassigned Access Ports : 0

WS5000>
```

Verify that the software version shown in the Software Ver. field is the current version by comparing this value with that on the Symbol website at:

#### http://www.symbol.com/services/downloads/download\_switchwireless.html

If the WS 5000 software version is older than what is on the Symbol Technologies, Inc. website, then refer to the Release Notes for this WS 5000 for instructions on upgrading the software.

The following steps create a typical network configuration. Modify this configuration as necessary.

### **Configuring Ethernet Ports**

WS5000>config<enter>

The system enters into the configuration mode and displays the following prompt:

WS5000.(Cfg)>

#### To change Ethernet port 2 configuration:

WS5000.(Cfg)>Ethernet<enter>

The system enters into Ethernet configuration mode. To configure the Ethernet port parameters, enter the following:

WS5000.(Cfg).Ethernet> 2<enter>

Where: 2 is the port being configured. Only port 2 needs to be configured for this procedure.

#### To disable DHCP:

WS5000.(Cfg).Ethernet.[2]>set dhcp disable<enter>

Symbol recommends assigning static IP addresses for Ethernet ports.

#### To change the Ethernet port 2 IP address:

This step is required to manage the WS 5000.

WS5000.(Cfg).Ethernet.[2]>ipaddress <address><net\_mask><enter>

Where: **<address**> is the IP address assigned to this port.

Where: **<net\_mas**k> is the subnet mask for this port.

For example:

WS5000.(Cfg).Ethernet.[2]>ipaddress 192.168.123.102 255.255.255.0

#### To configure a gateway:

WS5000.(Cfg).Ethernet.[2]>set gateway <address><enter>

Where: <address> is the IP address for the gateway device.

#### To specify a DNS server:

WS5000.(Cfg).Ethernet.[2]>set dns <address><enter>

Where: <address> is the IP address of the DNS server.

#### To verify information about an Ethernet port:

WS5000.(Cfg)>show ethernet 2<enter>

The system displays information about Ethernet port 2 (as opposed to port 1):

WS5000.(Cfg)> show ethernet	2	
Name	:	Ethernet 2
Network Interface Card #	:	2
Description	:	Ethernet Adapter
MAC Address	:	00:A0:xx:xx:xx:xx
Status	:	Enable
Online	:	Yes
Speed	:	100
DHCP status	:	Disable
IP Address	:	192.168.91.153
Network Mask	:	255.255.255.0
Port type (trunk/non-trunk)	:	Non-Trunk
VLAN Tags seen	:	None
Up-Time	:	00d:00h:16m
Transmit packets	:	852
Received packets	:	12783
Gateway details	:	
1. 192.168.91.2.		
DNS details		
1. 192.168.95.1.		
2. 192.168.95.229.		
WS5000 (Cfa)		

After the Ethernet port has been configured and verified, type **exit** to return to the Console command prompt.

The switch installation is complete. The serial cable can be disconnected from the administrative PC. The next section describes a basic switch security policy configuration using the browser interface of a PC connected to the same subnet as Ethernet port 2 on the WS 5000.

# Step 3: Creating a Policy Using the GUI

This step should take less than 15 minutes to complete. When you finish this step, the WS 5000 will be operating with a WEP 128 security policy.



The WS 5000 GUI simplifies creating policies. To use the GUI, start a web browser on a computer connected like the computer on the wired LAN in Figure 2. Direct the browser to the secure connection at 'https://nnn.nnn.nnn', (not http://) where nnn.nnn.nnn.nnn is the IP address of the Ethernet port 2 on the WS 5000. (In the example in "To change the Ethernet port 2 IP address:" this IP address is 192.168.123.102.) The browser should be able to connect immediately, and display the login screen as shown here.

Enter the User ID admin, and Password symbol. (Both are case-sensitive.) Then click the Login button. The WS 5000 main window appears.

View Create Modify System Settings	Switch Policy         Policy Name:       Default Wireless Switch Policy         Country:       United States         Wireless Switch         Name:       WS5000         Type:       Primary         Description:       WS 5000 Wireless Network
	Status:       0 Access Ports Currently Active         License       -         Software Version:       1.1.4.3C         License Level:       0 Access Ports, 4096 MUs         Serial Number:       00A0F8         Adoption Level:       0 Access Ports

On the left panel of this main window, notice that the *Default Wireless Switch Policy* (highlighted) includes a *Default Ethernet Policy*, which applies to both Ethernet ports, and a *Default Access Port Policy* which applies to any connected Access Ports.

This section will explain how to replace the Default Wireless Switch Policy and the Default Access Port Policy with a new switch-level WEP 128 policy. (The Default Ethernet Policy does not need to be changed.) To do this, users will need to create a Security Policy and define a WLAN that will use this new Security Policy. The policy wizard will guide the user through the procedures.

### **Basic WS 5000 Configuration**

The following steps to enable WEP 128 security for a new ESSID are simple yet powerful. The WS 5000 GUI can also be used to create a wide variety of complex network policies. Using the GUI to create these advanced policies requires a thorough understanding of concepts that are beyond the scope of this document. For a complete explanation of WS 5000 policies, see the *System Reference Guide* included on the WS 5000 CD.

These instructions apply to WS 5000s with the **Type** value set to **Primary**. If this WS 5000 is configured as **Standby**, no Access Ports will be adopted and no policies will be applied.

#### To change the Type setting:

- 1. From the toolbar, select System Settings  $\rightarrow$  Standby Management...
- 2. Click Primary for the Wireless Switch Mode selection.
- 3. Click **Apply**, then click **Close**.

The main screen should now show the Type as **Primary**.

#### To create a new WLAN and a security policy:

- 1. On the main WS 5000 window, select the *Default Wireless Switch Policy* from the tree view on the left panel of the main screen.
- 2. Click **Properties** on the upper right corner of the main screen. The *Wireless Switch Policy Manager* screen appears.

	Wireless Swith Active Polic Defaul	<b>ch Policy Manager</b> It Wireless Switch Policy
	Policy-	Settings         Name:       Default Wireless Switch Policy         Descriptior       Default Wireless Switch Policy         Country:       United States         Channel:       11         Power Level 100       mW         Emergency       Default Access Poil         Ethermet Polic;       Add / Delete.
	C	ireate Delete Activate Save Close Help
Varning: Ar	inlet Window	

Wireless Swit	tch Policy Wizard 🛛 🛛 🗙
	Create a New Wireless Switch Policy Wizard To create a New Wireless Switch Policy, enter the Name and Description of the Policy you wish to create. To choose an existing Policy as a template, check the box below and select an existing policy.
(((e.,	Name:         QSG Wireless Switch Policy           Description         QSG first wireless switch policy
	Use an existing Wireless Switch Policy as a template.
	< Back Next> Finish Cancel Help

Warning: Applet Window

3. From the *Wireless Switch Policy Manager* screen, click **Create**.

The Create a New Wireless Switch Policy Wizard screen appears.

4. On the Create a New Wireless Switch Policy Wizard screen, enter a Name and (optional) Description for the Wireless Switch policy. In this example, the Name is QSG Wireless Switch Policy and the Description is the First wireless switch policy. Click Next to display the Wireless Switch Policy screen.

Wireless Switc	h Policy Wizard	×
	Wireless Switch Policy: QSG Wireless Switch Policy         How do you want to configure your Wireless Switch? Select Country.         Default Channel. Power Level for Access Ports, and the Ethernet Port Policy to be used. You can also create a new Ethernet Port Policy by clicking on         Country:       United States I         Channel:       I         Power Level       mW         Emergency         Ethernet Port Policy:       Default Ethernet Polic Create	
	<back next=""> Finish Cancel Help</back>	
VVarning: Applet V	Window	

- Wireless Switch Policy Wizard × . Wireless Switch Policy QSG Wireless Switch Policy Which Access Port Policies do you want to apply to this Wireless Switch Policy? You can create a new Access Port Policy by clicking on the "Create..." button below. Access Port Policy Selected: Available: Default Access Port F >> << Create... <Back Next > Finish Cancel Help Warning: Applet Window

5. On the *Wireless Switch Policy* screen, select the appropriate **Country**. The Channel and Power Level settings adjust to the country selected. Click **Next** to display available Access Port policies.

6. On this Wireless Switch Policy screen, click **Create** to define a new Access Port policy. The *Create a New Access Port Policy Wizard* screen appears.

7. On the Create a New Access Port Policy Wizard screen, enter a Name and (optional) **Description** for this Access Port policy. In this example, the Name is QSG Access Port Policy and the Description is First access port policy.

Click **Next** to start the process of creating a WLAN for this Access Port policy.

Access P	ort Policy Wizard		×
	Access Port Policy : Which WLANs do you want to create a new WLAN by clicki	QSG Access Port Policy o apply to this Access Port Policy? You can ing on the 'Create' button below.	
(((e., ((e.,	WLAN Available: Private Access Public Access Secure Access Symbol Default	Selected:	
	Create	<back next=""> Finish Cancel He</back>	lp
Warning: A	pplet Window		

WLAN Wizard	×
	Create a New WLAN Wizard To create a New WLAN, enter the Name and Description of the WLAN you To choose an exisiting WLAN as a template, check the box below and sele WLAN.
(()) (())	Enter a name and description for the WLAN. Name: OSG First WLAN Description: First Wireless LAN
()	Use an existing WLAN as a template.  Paultest  C 802.11 b  C 802.11 a  C 802.11 FH  C Bluetooth
	<back next=""> Finish Cancel Help</back>
Warning: Applet	Window



8. On this Access Port Policy screen, click **Create**. The Create a New WLAN Wizard screen appears.

 On the Create a New WLAN Wizard screen, enter a Name and (optional) Description for this WLAN. For this example, the Name is QSG First WLAN and the Description is First Wireless LAN.

Click **Next** to display the WLAN details screen.

10. Enter an **ESSID**. In this example, the ESSID is *QSGESSID*.

Click **Next** to define the security policy for this WLAN.

WLAN Wizard	×
.Q.	WLAN: OSG First WLAN Which Security Policy do you want to apply to this WLAN? Choose an exisiting Security Policy from the drop down menu or create a ne clicking on the Create button below.
(II.e.)	✓ Enable Securi     Security Policy: Default     Create
(iie.	Kerberos Name:         OSG ESSID           Kerberos Password:
VVarning: Applet	KBack Next> Finish: Cancel Help





11. On this WLAN screen click **Create** to define a new security policy. The *Create a New Security Policy Wizard* screen appears.

- 12. On the Create a New Security Policy Wizard screen, enter a **Name** and (optional) **Description** for this new security policy. In this example, the Name is QSG First Security Policy and the Description is First security policy.
- 13. Click the **WEP** checkbox to enable encryption of wireless traffic and click **Next**. The *Select Encryption Key Management* screen appears.
- 14. On this Select Encryption Key Management screen, click Manually Pre-Shared Key and click Next to display the WEP Encryption Key Settings screen.



15. For wireless clients using Symbol Technologies adapters, enter a **Pass Key** value and click **Generate**. Remember this Pass Key as it will be needed to configure wireless clients. Click **Next** and skip to step 17.

Security Policy Wizard × WEP Encryption Key Settings Your Policy supports Mobile Units using pre-shared(manually fixed) WEP keys. Enter WEP keys values below. B WEP Kev Size O 40 bit K∈ € 128 bit K∈ Pass Ke Generate... Enter any string to create a set of WEP keys compatible with all • Key# 2ad230091c3f61a2be773fe54c C Key #: 202122232425262728292A2B2C Reset Keys C Key #: 303132333435363738393A3B3C C Key # 404142434445464748494A4B4C 40-bit: Enter 5 ASCII or 10 hexadecimal characters. 128-bit: Enter 13 ASCII or 26 <Back Next> Finish Cancel Help Warning: Applet Window



- 16. For wireless clients using non-Symbol Technologies adapters, enter a 26character hexadecimal value for Key#1. Remember this 26-character value as it will be needed to configure wireless clients. Click **Next** to display the Security Policy confirmation screen.
  - 17. From this Security Policy confirmation screen, click **Finish** to save the policy and exit the Security Policy Wizard and display the *WLAN Wizard* screen. The newly created security policy will now be attached to the WLAN.

.Q.	WLAN: QSG First WLAN Which Security Policy do you want to apply to this WLAN? Choose an exisiting Security Policy from the drop down menu or create a n clicking on the Create button below.
(iie.	Enable Securi     Security Policy: Default     Default     Default
<b>,</b>	Nerrors Detault           OSG First Security Policy           Radius with EAP Default           WEP128 Default           Kerberos Passwi           WEP40 Default
	<back next=""> Firmish Cancel Help</back>

- WLAN Wizard
   X

   WLAN Created Successfully!
   You have successfully created the WLAN: OSG First WLAN

   Click Finish to save and exit.
   Click Finish to save and exit.

18. From the WLAN Wizard screen, select the security policy just created. In this example, this is QSG First Security Policy. Click Next to display the next WLAN Wizard screen.

19. From this WLAN Wizard screen, click **Next** to display the WLAN creation confirmation screen.

20. From this WLAN Wizard confirmation screen, click **Finish** to save the WLAN policy and exit the WLAN Wizard.

The Access Port Policy Wizard screen appears which allows the newly created WLAN to be attached to the Access Port policy.

Access Po	rt Policy Wizard
	Access Port Policy : OSG Access Port Policy Which WLANs do you want to apply to this Access Port Policy? You can create a new WLAN by clicking on the 'Create' button below.
((.e., ((.e.,	WLAN     Selected:       Available:     Selected:       Private Access     >>       OSG First WLAN     >>       Secure Access     >>       Symbol Default     <       Create
	<back next=""> Finish Cancel Help</back>
Warning: Ap	plet Window

ccess Port Policy Wizard × QSG Access Port Policy Access Port Policy : Which WLANs do you want to apply to this Access Port Policy? You can create a new WLAN by clicking on the 'Create...' button below. D WLAN Selected: Available: QSG First WLAN Private Access Public Access Secure Access Symbol Default >> << Create... <Back Next> Finish Cancel Help Warning: Applet Window

Access F	ort P	olicy Wizard		×
		Access Port Polic	cy : QSG Access Port Policy	
		Which Network Policy Port Policy? Choose a new policy by clicking	do you want to apply to each WLAN in this Access in existing policy from the drop down menu or create a on the 'Create' button below.	
<u> </u>			QSG First WLAN	
e. (((e.		ESSID:	QSGESSID	
33333		Security Policy:	Default	
		Network Policy:	(none) Create	
((( <b>•</b> )				
			<back next=""> Finish Cancel Help</back>	
Warning: /	Applet	Window		

- 21. On the Access Port Policy Wizard screen, select the WLAN policy just created and click the >> button to move the policy from the Available box to the Selected box. The Access Port Policy Wizard screen redisplays showing the WLAN policy in the Selected box.
- 22. From this Access Port Policy Wizard screen, click **Next** to apply the Network Policy to this WLAN.

23. Click **Next** without making any changes to the settings on this *Access Port Policy Wizard* screen. The Bandwidth Allocation screen appears.





Wireless Swit	tch Policy Wizard
	Wireless Switch Policy QSG Wireless Switch Policy Which Access Port Policies do you want to apply to this Wireless Switch Policy? You can create a new Access Port Policy by clicking on the "Create" button below. Access Port Policy Available: Selected: Default Access Port Pol Sci Access Port Pol C
(((•••	Create
 Warning: Annle	t Window
Producing. Apple	t TTITILOYY

24. Click **Next** without making any changes to the bandwidth settings on this *Access Port Policy Wizard* screen. The Access Port Policy confirmation screen appears.

- 25. On the Access Port Policy confirmation screen, click **Finish** to save this Access Port policy and exit the Access Port Policy Wizard. The *Wireless Switch Policy Wizard* screen appears to allow the newly created Access Port Policy to be attached to the switch policy.
- 26. From the Wireless Switch Policy Wizard screen, select the Access Port Policy just created (in this example, QSG Access Port Policy) and click the >> button to move the policy from the Available box to the Selected box. The Wireless Switch Policy Wizard screen redisplays showing the Access Port Policy in the Selected box.

Wireless Swite	ch Policy Wizard			3
	Wireless Switch Policy: C Which Access Port Policies of Policy? You can create a ne "Create" button below. Access Port Policy Available: Default Access Port F	ISG Wireless S do you want to ap ww Access Port Pr >> >>	Switch Policy ply to this Wireless Switch olicy by clicking on the Selected: OSG Access Port Pol	
	l l	<back next=""></back>	Finish Cancel Help	
Warning: Applet	Window			

Wireless Swit	ch Policy Wizard		×
	Wireless Switch Polic Which Access Ports/Acc Switch Policy? Enter the Points and assign the ap Adoption List Allow	cy: QSG Wireles: ess Points do you MAC addresses o propriate Access f	s Switch Policy want to allow on this Wireless f allowed Access Ports/Access Port Policy. The MAC
·	Start MAC	End MAC	Access Port Policy
	Add Delete	]	
		< Back Next	> Finish Cancel Help
Warning: Apple	t Window		

Wireless Switc	h Policy Wizard 🛛 🕺
	Wireless Switch Policy.QSG Wireless Switch Policy Which Access Ports/Access Points do you want to disallow on this Wireless Switch Policy? Enter the MAC addresses of disallowed Access Ports/Access Points. The MAC addresses can be entered individually or Adoption List. Disallow
(iie).	Start MAC End MAC
Warning: Applet V	Kack Next> Fimish Cancel Help

27. From this Wireless Switch Policy Wizard screen, click **Next** to display the *Adoption List Allow* screen.

28. Click **Next** without making any changes to this *Wireless Switch Policy Wizard* screen. The *Adoption List Disallow* screen appears.

29. Click **Next** without making any changes to this *Wireless Switch Policy Wizard* screen. The *Unknown Access Ports/Access Points* screen appears.





Wireless Switch Policy Ma	nager 🛛
Wireless Sw Active Polic Defe	itch Policy Manager witWireless Switch Policy
Policy Default Wireless OSG Wireless	Settings Name: OSG Wireless Switch Policy Descriptior The first wireless switch policy Country: United States Adoption List. Channel: The first wireless switch policies Power Level The mrW Create Delete Activate Save Close Help
Warning: Applet Window	

30. Click the **Allow adoption and use Access Port Policy** button and click **Next** to display the Wireless Switch Policy confirmation screen.

31. From this Wireless Switch Policy confirmation screen click **Finish** to save this Wireless Switch policy and exit the Wireless Switch Policy Wizard. The *Wireless Switch Policy Manager* screen appears.

32. From the Wireless Switch Policy Manager screen, select the Wireless Switch Policy just created (in this example, QSG Wireless Switch Policy) and click Activate. A warning box appears.



33. From the Warning box, click **OK**. The *Wireless Switch Policy Manager* screen reappears.

Wireless Switch Policy Manager	×
Wireless Switch Polic Active Polic QSG Wireless Sv	<b>y Manager</b> itch Policy
Policy Settings	
Default Wireless Name:	QSG Wireless Switch Policy
Descri	otion The first wireless switch policy
Countr	/ United States  Adoption List
Chann	el: 1 🗾 Access Port Policies
Power	Leve 1 mW QSG Access Port F
Em	rgency
Ethern	et Polic
Defau	Ethernet Add / Delete
Create	elete Activate Save Close Help
Warning: Applet Window	

34. From the *Wireless Switch Policy Manager* screen, click **Close**. The WS 5000 main screen reappears.

WS 5000 Wireless Switch	lite (ite
View Create Modify System Settings	Help
George Wireless Switch Policy	Switch Policy
Outperformer Policy     Outperformer Policy     Outperformer     Outp	Policy Name: Default Wireless Switch Policy  Policy Name: United States Adoption List
Logian (Unassigned Access Ports)	Wireless Switch Name: WS5000 Type: Primary Description: WS 5000 Wireless Network Status: 1 Access Ports Currently Active
	License Software Version: 1.1.4.30 License Level: 30 Access Ports, 4096 MUs Serial Number: 00A0F8 Adoption Level: 30 Access Ports
Connected	Apply Undo Changes Help Logout

35. Notice that the policy tree on the left panel of the WS 5000 main screen shows the new policy (*QSG Wireless Switch Policy*), which makes WEP 128 active for this WS 5000 (and all attached Access Ports and Mobile Units). Notice that the new switch-level policy also includes the newly created QSG Access Port Policy, which in turn controls the *QSG First WLAN* policy with the new ESSID.

#### To verify that the new policy is working:

- 1. Reconfigure wireless clients to match these new settings (ESSID, etc.) as shown in Figure 2.
- Reissue the ping test done in "Verifying the Connections" to confirm that a wireless client can still reach the wired LAN. Or, use the GUI to confirm connectivity with mobile units. To verify the connectivity of mobile units using the GUI, click **Mobile Units** (highlighted) on the left panel of the WS 5000 main screen (shown below). The *MU View* screen appears.

WS 5000 Wireless Switch			") [ ]	1.	symbol
View Create Modify System Settings He	elp				
GOSO Wireless Switch Policy      Gotest     Gethermet1     Gethermet2     GOSO Access Port Policy	MU View MU Details WLAN: QSG First WLAN		✓ Include MUs w	which are Away	
00:A0:F8:	Type MAC Address	IP Address	WLAN	RF State	Auth
Mobile Units	🍣 00:A0:F8:	192.168.123.10: QS	SG First WLAN	Associated	Authen
	31		1		Þ
	MU Count: 1			Properties	Refresh
				Help	Logout
Connected				02:19 AM PST 🛛 🖌	600

3. Select a mobile unit and click **Properties**. The *MU Properties* screen appears.

Туре:	Data	PSP(Power Mod	CAM mode	
MAC Address:	00:A0:F8:	Interface:	RF	
IP Address:	Address: 192.168.123.103		Association Uptime:1009 seconds	
WLAN:	QSG First WLAN	Session Tkt Expirec0		
RF State:	Associated	Session Username:		
Authentication St	Authenticated	Packets Sent:	20	
Authentication Me	ati Open	Packets Received:	87	
Encryption Metho	Open	Bytes Sent:	15752	
Access Port:	00:A0:F8:	Bytes Received:	17611	
Current Tx Rate:	11 Mbps	Last Activity:	0	
Supported Rates	1, 2, 5.5, 11 Mbps	VLAN ID:	Not using VLAN	
RSSI:	42			

From the *MU Properties* screen, the identity and connection status of the selected mobile unit can be verified. Notice the wide variety of identification, status, and traffic information available for this mobile device.

# Conclusion

The WS 5000 is now fully operational and secured with WEP 128. No additional configuration is required unless desired. To create additional policies, refer to the *System Reference Guide* on the CD included with this WS 5000.

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