

# NETGEAR®

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## ProSecure Unified Threat Management Appliance UTM9S Wireless Quick Start Guide



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# Introduction

This quick start guide provides basic wireless configuration information for the ProSafe UTM9S. For information about advanced wireless features, and for complete configuration steps, see the reference manual at [downloadcenter.netgear.com](http://downloadcenter.netgear.com).

## Default Wireless Settings

The default wireless settings work well for most wireless networks, but you must configure the country of operation and wireless security.

The country is initially set to the default country for the world region where the UTM is sold. You must select the actual country of operation from the country list. The countries in each region are listed in alphabetic order. You must also check the correct security setting for your country.

These are the default settings:

Item	Description
Wireless radio	Enabled
Region	Not configurable. It is set to the region in which you purchased the wireless UTM.
Country	The selection is limited to the countries in the region in which you purchased the wireless UTM. The default regional settings are: <ul style="list-style-type: none"><li>• <b>Africa.</b> Algeria</li><li>• <b>Asia.</b> Azerbaijan</li><li>• <b>Europe.</b> Albania</li><li>• <b>Middle East.</b> Bahrain</li><li>• <b>North America, Latin America, and The Caribbean.</b> United States</li><li>• <b>Oceania.</b> Australia</li></ul>

Item	Description
Operating frequency	Configurable: 2.4 GHz or 5 GHz
Default security profile	UTM9S
Default network name (SSID)	netgear-1
Broadcast SSID	Enabled
Security	Open
Encryption	None
Authentication	None
Default transmit power	Full
802.11 wireless mode	g and b (the default for most countries)
802.11b/g/n radio frequency channel	Auto
802.11n channel spacing	20 MHz
Beacon interval	100 ms
DTIM interval	2
RTS threshold	2346 bytes
Fragmentation threshold	2346 bytes
Preamble mode	Long
Protection mode	None
Power save	Disabled

# Wireless Equipment Placement and Range Guidelines

The range of your wireless connection can vary based on the location of the wireless UTM. The latency, data throughput performance, and notebook power consumption of wireless adapters also vary depending on your configuration choices.

**Note:** Failure to follow these guidelines can result in significant performance degradation or the inability to connect wirelessly to the wireless UTM. For complete performance specifications, see the data sheet at:

[http://prosecure.netgear.com/pdf/datasheets/utm9s\\_ds.pdf](http://prosecure.netgear.com/pdf/datasheets/utm9s_ds.pdf)

For best results, place your wireless UTM according to the following general guidelines:

- Near the center of the area in which your wireless devices operate.
- In an elevated location such as a high shelf where the wirelessly connected devices have line-of-sight access (even if through walls).
- Away from sources of interference such as computers, microwaves ovens, and 2.4 GHz cordless phones.
- Away from large metal surfaces or water.
- Placing the antennas in the upright position provides the best horizontal coverage.
- If you are using multiple wireless access points such as the wireless UTM, it is better if access points use different radio frequency channels to reduce interference. The recommended channel space between adjacent access points is five channels (for example, use Channels 1 and 6, or 6 and 11, or 1 and 11).
- The time that it takes to establish a wireless connection can vary depending on both your security settings and placement. WEP connections can take slightly longer to establish. Also, WEP

encryption can consume more battery power on a notebook computer.

## Configure the Country of Operation

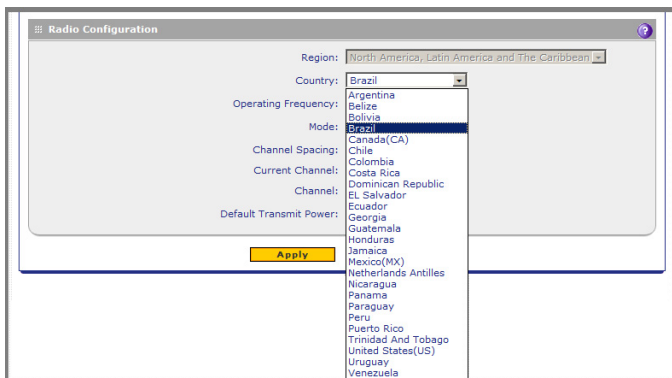
The region of operation is not configurable. It is set for the region in which you purchased the wireless UTM. The selection of the country is limited to the countries in the region in which you purchased the wireless UTM. You can also optionally select the operating frequency.

### ➤ To configure the country and frequency settings:

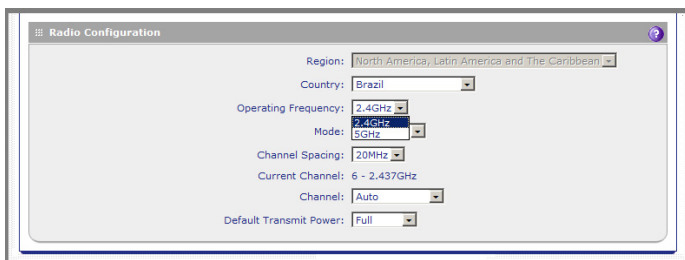
1. Select **Network Config > Wireless Settings > Radio Settings**. The Radio Settings screen displays:

The screenshot shows the Netgear ProSecure Unified Threat Management UTM9S web interface. The 'Radio Settings' tab is active, and the 'Radio Configuration' section is expanded. The 'Country' dropdown menu is highlighted with a red oval, showing 'United States(US)' selected. Other settings include Region: 'North America, Latin America and The Caribbean', Operating Frequency: '2.4GHz', Mode: 'ng', Channel Spacing: '20/40MHz', Current Channel: '6 - 2.437GHz', and Default Transmit Power: 'Full'. There are 'Apply' and 'Reset' buttons at the bottom of the configuration area.

2. Select the country from the Country drop-down list.



3. This step is optional. From the Operating Frequency drop-down list, select either **2.4 GHz** or **5 GHz**.



4. Click **Apply** to save your settings. The wireless UTM reboots.

**Note:** Other wireless settings that you can configure on the Radio Settings screen are explained in the “Configure the Basic Radio Settings” section in Chapter 4, “Wireless Configuration and Security,” of the reference manual.



# Configure WPA+WPA2 with PSK Security

NETGEAR recommends that you configure wireless authentication and encryption to secure your wireless traffic. WPA+WPA2 with a pre-shared key (PSK) is easy to configure and works well in most situations. However, if your network uses 802.11n devices only, select WPA2 to enable the 802.11n devices to function at full speed.

- **To configure WPA+WPA2 with PSK security for the default wireless profile:**
- 1. Select **Network Config > Wireless Settings > Wireless Profiles**. The Wireless Profiles screen displays.

The screenshot shows the NETGEAR ProSecure Unified Threat Management UTM9S interface. The top navigation bar includes 'Network Config', 'Network Security', 'Application Security', 'VPN', 'Users', 'Administration', 'Monitoring', 'Support', and 'Wizards'. The 'Wireless Profiles' section is active, showing a table of wireless profiles. The 'netgear-1' profile is highlighted, and its 'Edit' button is circled in red.

Status	Profile Name	SSID	Broadcast	Security	Encryption	Authentication	Schedule	Start Time	Stop Time	Action	
<input type="checkbox"/>	Enabled	UTM9S	netgear-1	<span style="color: green;">●</span>	OPEN	NONE	NONE	No	0:0	0:0	<a href="#">Edit</a>

Below the table, there are several action buttons: [Select All](#), [Enable](#), [Disable](#), [Delete](#), [ACL](#), [WMM...](#), [Status](#), and [Add...](#)

- Click the **Edit** button in the Action column for the default1 wireless profile. The Edit Wireless Profiles screen displays.

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Logout

Network Config | Network Security | Application Security | VPN | Users | Administration | Monitoring | Support | Wizards

WAN Settings :: Wireless Settings :: Protocol Binding :: Dynamic DNS :: WAN Metering :: LAN Settings :: DMZ Setup :: Routing

Edit Wireless Profile

Operation succeeded.

Wireless Profile Configuration

SSID: netgear-1

Broadcast SSID:

Security: OPEN

Encryption: TKIP

Authentication: PSK

WPA Password: [REDACTED]

Schedule:

Start Time: 0 Hour 0 Minutes AM

Stop Time: 0 Hour 0 Minutes AM

VLAN: defaultWlan

[VLAN Profiles](#)

[Radius Server Settings](#)

- From the Security drop-down list, select **WPA+WPA2**. The Encryption drop-down list automatically selects TKIP+CCMP, which is the default encryption setting for WPA+WPA2.
- From the Authentication drop-down list, select **PSK**.
- In the WPA Password field, enter a password (also referred to as a pre-shared key) of at least eight characters.

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Logout

ProSecure Unified Threat Management UTM9S

Network Config | Network Security | Application Security | VPN | Users | Administration | Monitoring | Support | Wizards

WAN Settings :: Wireless Settings :: Protocol Binding :: Dynamic DNS :: WAN Metering :: LAN Settings :: DMZ Setup :: Routing ::

**Edit Wireless Profile**

Operation succeeded.

Wireless Profile Configuration

SSID: netgear-1

Broadcast SSID:

Security: WPA+WPA2

Encryption: TKIP+AES

Authentication: PSK

WPA Password: .....

Schedule:

Start Time: 0 Hour 0 Minutes AM

Stop Time: 0 Hour 0 Minutes AM

VLAN: defaultWlan

[VLAN Profiles](#)

[Radius Server Settings](#)

**Warning:** If you use a wireless computer to configure wireless security settings, you are disconnected when you click Apply. Reconfigure your wireless computer to match the new settings, or access the wireless module from a wired computer to make further changes.

6. Click **Apply** to save your settings.

The screenshot displays a web-based configuration interface for a network device. At the top, there is a navigation menu with tabs for Network Config, Network Security, Application Security, VPN, Users, Administration, Monitoring, Support, and Wizards. Below this, a breadcrumb trail shows: WAN Settings >> Wireless Settings >> Protocol Binding >> Dynamic DNS >> WAN Metering >> LAN Settings >> DNZ Setup >> Routing >> Edit Profile.

The main content area is titled "Edit Profile" and shows a confirmation message: "Operation succeeded." Below this, the "Profile Configuration" section is expanded, showing the following settings:

- Profile Name: UTM9S
- SSID: utm9s\_test
- Broadcast SSID:
- Security: WPA2 (dropdown menu)
- Encryption: AES (dropdown menu)
- Authentication: PSK (dropdown menu)
- WPA Password: [masked with 8 dots]
- Enable Pre-Authentication:

The "Radius Server Settings" section is also expanded, showing:

- Server Name / IP Address: [text box]
- Radius Port: 1812
- Shared Key: [text box]
- Key Life Time: 3600 (Minutes)

The "Wep Index and Keys" section is expanded, showing:

- Authentication: Open System (dropdown menu)
- Encryption: 256 bit WEP (dropdown menu)
- WEP Passphrase: test (text box) with a "Generate" button
- Wep Key 1:  9f86d081884c7d659a2feaa (text box)
- Wep Key 2:  [text box]
- Wep Key 3:  [text box]
- Wep Key 4:  [text box]

At the bottom of the configuration area, there are two buttons: "Apply" and "Reset".

**Note:** For other types of security (WEP, WPA, WPA2, RADIUS authentication) and for the other wireless settings, see the “Wireless Security Profile” section in Appendix B, “Wireless Module for the UTM9S,” of the reference manual.

## Test Wireless Connectivity

After you have configured the wireless UTM as explained in the previous sections, test your wireless clients for wireless connectivity before you place the wireless UTM at its permanent position.

➤ **To test for wireless connectivity:**

1. Configure the 802.11g/n wireless clients so that they all have the same SSID that you have configured on the wireless UTM, for example, netgear-1 (the default SSID). Make sure that the wireless mode on the wireless UTM supports the wireless capacity of the wireless clients.
2. Verify that your wireless clients have a link to the wireless UTM.
3. Verify network connectivity by using a browser such as Internet Explorer 7.0 or later or Mozilla Firefox 4.0 or later to browse the Internet, or check for file and printer access on your network.

If you have trouble connecting to the module, try to connect without security by selecting **OPEN** from the Security drop-down list on the Edit Wireless Profiles screen for the profile that you are using. See the figure on [page 12](#).

## For More Information

Appendix B, “Wireless Module for the UTM9S,” of the reference manual provides information about the following wireless topics:

- Configuring the basic radio settings
- Wireless data security options
- Wireless security profiles, including information about restricting wireless access by MAC address
- Configuring advanced radio settings
- Configure access point
- Configure a Wireless Distribution System
- Configure Advanced Profile and WMM QoS Priority Settings

## Reference Manual

The reference manual and other UTM9S documentation is available from the user interface and the NETGEAR download center:

[downloadcenter.netgear.com](http://downloadcenter.netgear.com)

## Declarations of Conformity

For complete DoC, visit the NETGEAR EU Declarations of Conformity website at:

[http://support.netgear.com/app/answers/detail/a\\_id/11621/](http://support.netgear.com/app/answers/detail/a_id/11621/)



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