Technicolor TG670: Wireless configuration

1. Introduction

This document introduces you to the wireless functions of your Technicolor Gateway and helps you to configure them.

The Technicolor Gateway access point

Your Technicolor Gateway is equipped with a wireless access point that supports the following standards:

- IEEE 802.11n
- IEEE 802.11g
- IEEE 802.11b

> **!** The access point is disabled by default. You have to enable it first before you can start using it. For more information on how to enable the access point, see "2. Enabling the wireless access point" on page 1.

2. Enabling the wireless access point

Procedure

1. Open your web browser and browse to the **LAN IP address** printed on the Proximus sticker on the Technicolor Gateway.
2. The Technicolor Gateway home page appears.
3. Under **Office Network**, click **Wireless**.
4. The **Wireless Access Point** page appears. In the upper-right corner, click **Configure**.
5. Under **Configuration**, select **Interface enabled**.
6. Click **Apply**.
7. The wireless access point is now up and running and uses the following settings:
   - The Technicolor Gateway uses the Network Name that is printed on the label on the back panel of the Technicolor Gateway.
   - The default encryption type is **WPA + WPA2**.
   - The default wireless key is printed on the label on the back panel of the Technicolor Gateway.

   These are the recommended settings for optimal security and performance. If you want to change one of these settings, consult "3. Configuring the Wireless Access Point" on page 2.

8. Connect your wireless devices to the wireless access point. For more information, see "4. Connecting your wireless devices" on page 5.

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3. Configuring the wireless access point

Introduction

The Technicolor Gateway has an integrated web interface that allows you to configure its wireless settings.

3.1 The Wireless Access Point Page

Accessing the Wireless Access Point page

Proceed as follows:

1. Open your web browser and browse to the **LAN IP address** printed on the Proximus sticker on the Technicolor Gateway.
2. The Technicolor Gateway home page appears.
3. Under **Office Network**, click **Wireless**.
4. The **Wireless Access Point** page appears. In the upper right corner, click **Configure**.
5. The **Configure** page appears. On this page you are able to change:
   * The **Configuration** settings.
   * The **Security** settings.
6. Make your changes and click **Apply**.

Configuration settings

Under **Configuration**, you can find the following settings:

* **Interface enabled**:
  Allows you to enable or disable the wireless access point.
* **Physical Address**:
  The physical address or MAC address of the wireless access point (your Technicolor Gateway). A MAC (Media Access Control) address is a unique hexadecimal code that identifies a device on a network. Each network device has such a MAC address. The property is not configurable.
* **Network name (SSID)**:
  To distinguish one wireless network from another, each wireless network has its own network name, often referred to as Service Set IDentifier (SSID).
* **Actual speed**:
  Displays the current maximum transmission speed. The property is not configurable.
* **Band:**
  The frequency band used for communication between the wireless access point and its connected devices. The property is not configurable.
* **Channel Selection**:
  The channel selection allows you to set the channel selection to **Automatic** (the Technicolor Gateway selects the channel) or you can set it to **Manual**. When set to **Manual**, you can select the channel yourself.
* **Region**:
  Displays your regulatory region and is not configurable.

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> ! You can only use your Technicolor Gateway in the regulatory region mentioned.

- **Channel**:
Displays the channel that the wireless access point is currently using. When the **Channel Selection** is set to:
    - o **Automatic**, the Technicolor Gateway will automatically select the best channel and you cannot configure it yourself.
    - o **Manual**, you can select the channel.
- **Allow multicast from Broadband Network**:
Allows you to pass or discard multicast messages from the internet.

> ! Large bandwidth streams, like multicast video streams, may impact your wireless performance.

Security settings

Under **Security**, you can find the following settings:
- **Broadcast Network Name**:
By default the Technicolor Gateway broadcast sits network name. Wireless devices can then detect the presence of your network and inform the user that this network is available. If you want to hide your wireless network from other wireless devices, clear the **Broadcast Network Name** box.
- **Allow New Devices**:
Allows you to change the access control used by the Technicolor Gateway. The following modes are available:
    - o **New stations are allowed (automatically)**:
    All new wireless clients can access the Technicolor Gateway WLAN.
    - o **New stations are not allowed** and **New stations are allowed (via registration)**:
    Only allowed clients in the Access Control List (ACL) have access. To add a new client to the ACL, proceed as follows:
        1. Configure the wireless client settings.
        2. Under **Pick a task**, click **Search for wireless devices**.
- **Encryption**:
Allow you to select an encryption method for your wireless network. For more information, see "3.2. Changing the wireless encryption" on page 3.

3.2 Changing the wireless encryption

Introduction

You can protect the wireless communication between the wireless clients and your Technicolor Gateway with a wireless key. This means that:

- Only clients which use the correct Network Name (SSID) and wireless key can connect to your network.

- All data passing through your wireless access point is secured and encrypted.

Encryption types

Over the years a number of encryption types have been developed. The list below gives you an overview of the supported encryption types ordered by descending security level: you will find the highest level of security at the top of the list:

For home or small office environment:

- WPA-PSK Encryption:
  The wireless connection is security with a pre-shared key that has been defined by the user. Wireless clients must be configured with this key before they can connect to the Technicolor Gateway. The Technicolor Gateway supports the following WPA versions (ordered by descending security):
  - **WPA2:**
    The most recent and most secure version of WPA. Choose this version if you are sure that all your wireless clients support WPA2.
  - **WPA+WPA2:**
    This is a mixed mode. In this mode, WPA2, is still the preferred encryption type but wireless clients who do not support WPA2, can still use WPA as encryption type. Choose this option if not all your clients support WPA2 or if you are not sure. Wireless clients that support WPA2 will use WPA2, the others will use WPA.
  - **WPA:**
    The first version of **WPA**. Choose this option if you are sure that none of your wireless clients support WPA2.

> **!** If you want to configure WPA2 on the built-in wireless utility of Windows XP Service Pack 2 (SP2), you first have to upgrade your Windows XP to Service Pack 3.

  - WEP Encryption:
    The least safe encryption type used for wireless connections. Like WPA-PSK it uses a user-defined key, but WEP has been proven to have security issues.

> **!** Although the Technicolor Gateway allows you to use WEP or no security, we strongly advise against using one of them! Use *WPA(2)-PSK* or **Radius** instead.

For enterprise environment(s):

- Radius server (WPA):
  Wireless clients first need to authenticate to the Radius server (Remote Authentication Dial In User Service). The Radius server then provides the wireless key that must be used to encrypt its data. The Radius server regularly updates this key at a specified interval.
- If you do not have a Radius server in your network, use one of the encryption types for home and small office environment.

Configuring WPA-PSK Encryption

Proceed as follows:

Browse to the **Wireless Access Point** page and click **Configure** in the upper-right corner.
For more information, see "Accessing the wireless access point" on page 2.

1. Under **Encryption**, select **Use WPA-PSK Encryption**.
2. In the **WPA-PSK Encryption Key** box, type the key of your choice. The key must be in one of the following formats:
   - 8 to 63 alphanumeric characters. For example: MyKey123.
   - 8 to 64 hexadecimal characters (characters from 0 to 9 and from A to F). For example: C54F48A5.
3. In the **WPA-PSK Version** list, click the WPA-version of your choice. For more information, click "Encryption types" on page 4.
4. Click **Apply**.
5. Reconnect your wireless client(s) to the Technicolor Gateway using these new security settings. For more information, see "4. Connecting Your Wireless Devices" on page 5.

Configuring encryption for enterprise environment

Proceed as follows:

1. Browse to the **Wireless Access Point** page and click **Configure** in the upper-right corner.
   For more information, see "Accessing the Wireless Access Point page" on page 2.
2. Under **Encryption**, select **Use WPA Encryption**.
3. The following Radius settings are now available for configuration:
   - WPA Radius IP: enter the IP address of your Radius server.
   - WPA Radius Port: enter the WPA Radius port.
   - WPA Radius Key: enter the WPA Radius key.
   - WPA Version: Select the WPA version of your choice. For more information, see "Encryption types" on page 4.
4. Click **Apply** to immediately apply your changes.
5. Reconnect your wireless client(s) to the Technicolor Gateway using these new security settings.
   For more information, see "4. Connecting your wireless devices" on page 5.

4. Connecting your wireless devices

Before your start

Before you can connect a wireless device (for example, a computer) to your wireless network, you need to know the wireless settings that are currently used by the Technicolor Gateway, i.e.:

- The Network Name (SSID)
  If you did not change the SSID, your Technicolor Gateway uses the Network Name that is printed on the back panel label of your Technicolor Gateway.
- The wireless key
  If you did not change the security settings, the Technicolor Gateway uses the wireless key that is printed on the back panel label of your Technicolor Gateway.
- The encryption type
  If you did not change the security settings, the Technicolor Gateway allows you to use both WPA-PSK and WPA2-PSK.

Connecting your wireless device

Configure your wireless device with the same wireless settings as your Technicolor Gateway (network name and wireless key). For more information, consult the documentation of your wireless client.