PRODUCT ADVISORY NOTICE

Title:	PAN Wi-Fi Camera Security	**Version:**		**Date:**	11/29/17
Product:	Hikvision Wi-Fi Cameras			**Page:**	1 of 5
Action Required:	Upgrade to latest firmware posted, as required				

Summary

It is always a cybersecurity best practice to disable any features that you are not using. If you have a Hikvision Wi-Fi camera and are managing that camera using an Ethernet cable rather than Wi-Fi, it is recommended that you disable the Wi-Fi function (see "Disabling Wi-Fi," below).

NOTE: Under certain conditions, a threat actor could potentially establish Wi-Fi connections with Hikvision Wi-Fi cameras that are being managed with a wired Ethernet connection.

If you are using Wi-Fi, this document explains how to enable data encryption for the camera for heightened security (see "Enabling Wi-Fi Data Encryption," below).

Details

For the threat actor to establish a Wi-Fi connection, they would have to be within Wi-Fi range and set up a Wi-Fi access point (AP) with the default SSID of "davinci."

In a hypothetical situation where a threat actor successfully establishes a Wi-Fi connection, the connection would not give the attacker privileged access or access to the device interface and video feed. Privileged access and access to the device interface and video feed would still need to be gained through proper authentication.

While this finding does not constitute a vulnerability, it does increase the attack surface. It is another reminder to all those who own or manage Hikvision Wi-Fi cameras to ensure that they are running the latest firmware.

Hikvision believes education and outreach are of paramount importance in an effective cybersecurity program, and it recognizes the important role that security researchers play in our ongoing cybersecurity efforts.

Recommended Actions

As always, Hikvision highly recommends that users ensure they are using the most updated firmware for all Hikvision devices, including Wi-Fi cameras.

- **DS-2CD2xx2FWD-IW(S) Cameras**
  (DS-2CD2522FWD-IWS, DS-2CD2542FWD-IWS, DS-2CD2422FWD-IW, DS-2CD2442FWD-IW)

  All firmware after version 5.4.0 for these cameras allows for disabling the Wi-Fi interface. Factory default is "Enabled."

- **DS-2CD2xx2-IW(S) Cameras**
  (DS-2CD2112F-IWS, DS-2CD2132F-IWS, DS-2CD2412-IW, DS-2CD2432F-IW)

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Use the following link to download special firmware that can turn off the Wi-Fi function for these cameras.

ftp://hikfirmware:T3C$18639Hik@ftp.hikvisionusa.com/Hikvision_IP_Camera_Firmware/Raptor_2xxx_Series/Value%20Series/DZ20170605_048_R0_EN_STD_WiFi_Setting_5.4.5_170718.zip

Disabling Wi-Fi

To disable Wi-Fi on a Hikvision Wi-Fi camera (DS-2CD2xx2FWD-IW(S) w/firmware v5.4.0 or later) or (DS-2CD2xx2-IW(S) w/firmware v5.4.5), perform the following steps:

1. Log on to your system through your NVR or a Web browser.
2. Go to Configuration > Network > Advanced Settings > Wi-Fi.
3. Uncheck the **Enable** checkbox.
4. Click **Save**.

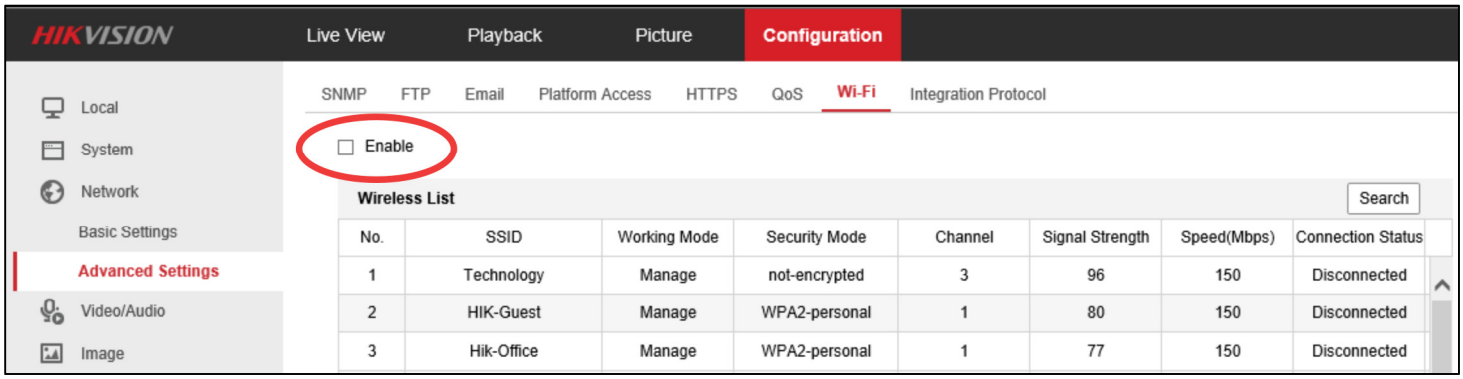

Figure 1, Configuration > Network > Advanced Settings > Wi-Fi Page "Enable" Checkbox

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Enabling Wi-Fi Data Encryption

Hikvision strongly recommends enabling data encryption when using its Wi-Fi cameras over Wi-Fi. The following steps explain how to enable data encryption. Factory default is "Not-Encrypted."

1. Log on to your system through your NVR or a Web browser.
2. Go to Configuration > Network > Advanced Settings > Wi-Fi.
3. Configure the Wi-Fi settings with the following values (refer to figure on next page):

    1 **Enable:** Check this checkbox to enable Wi-Fi.

    2 **Wireless List (Read Only):** This list displays all of the Wi-Fi cameras in the system.

    3 **SSID:** Input **davinci** (default).

    NOTE: We recommend changing the default SSID to one of your choosing.

    4 **Network Mode (Read Only):** This radio button is clicked (default).

    5 **Security Mode:** Use pull-down menu to select **WPA2-personal**.

    6 **Encryption Type:** Use pull-down menu to select **AES**.

    7 **Key 1:** Input a large (12 characters minimum recommended) random string of upper case characters, lower case characters, numbers, and special characters.

    8 **Enable WPS:** Uncheck this checkbox.

    9 **Save:** Click to save settings when done.

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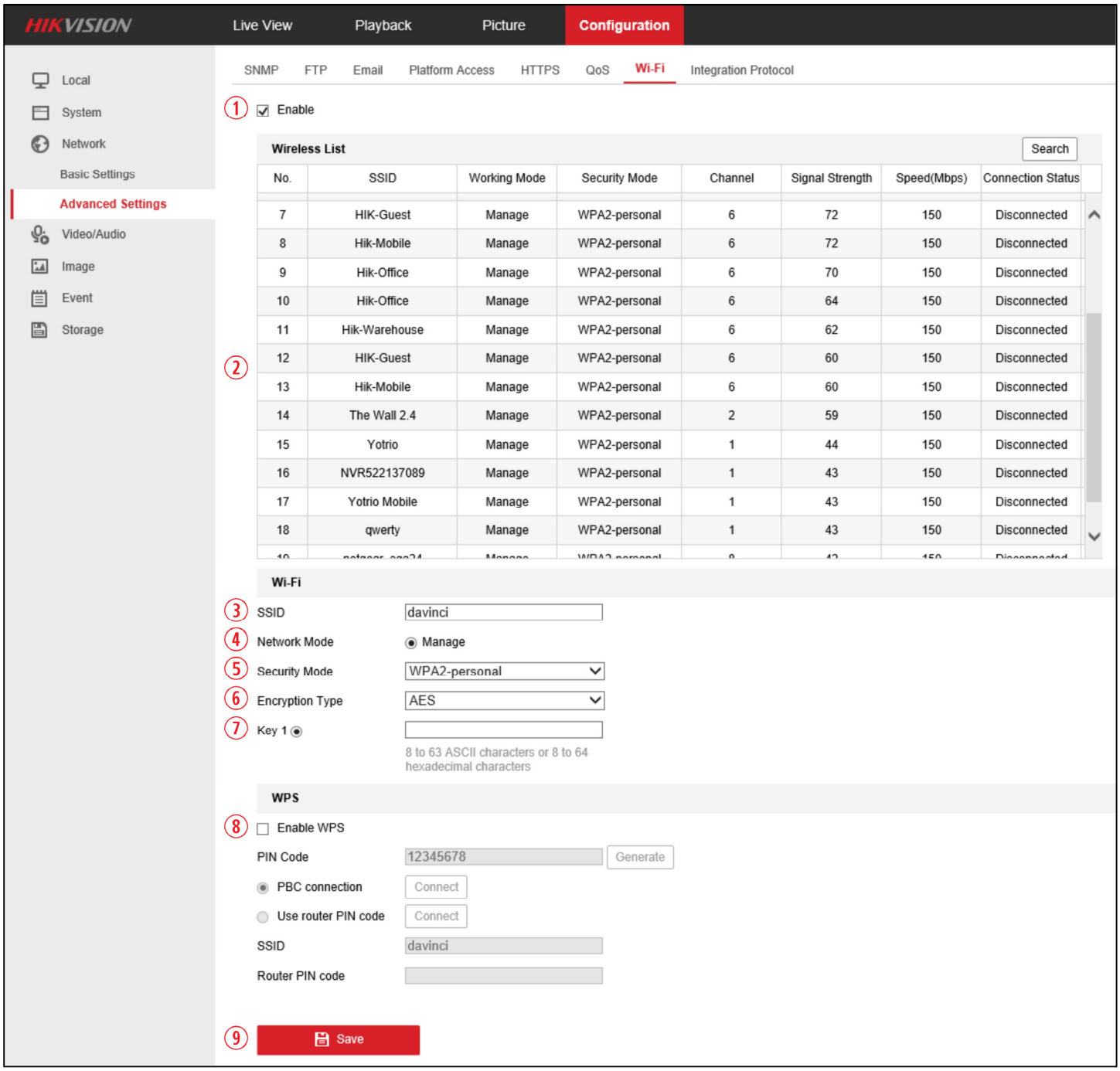

Figure 2, Configuration > Network > Advanced Settings > Wi-Fi Page Settings

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Resources

Links to the updated firmware, and many other cybersecurity resources, are available at the Hikvision Security Center, http://www.hikvision.com/us/securitycenter_10636.html.

Questions

If you have questions or concerns, please contact your Hikvision representative, or contact us at support@hikvision.com. In addition, Hikvision has launched a dedicated Cybersecurity Hotline that integrators, clients, and technology partners can reach directly by calling 626-723-2100.

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