

Versions

▸ Android 11 Beta

▾ Android 10

Home

Android 10 highlights

▾ Privacy and location

Overview

Privacy changes

▸ Behavior changes for apps

Features and APIs

▸ Get started with Android 10

▸ Pie

▸ Oreo

▸ Nougat

▸ Marshmallow

▸ Lollipop

▸ KitKat

Dashboards

Devices

▸ Wear OS

Android TV

Android for Cars

▸ Android Things

Chrome OS devices

Restriction on enabling and disabling Wi-Fi

Apps targeting Android 10 or higher cannot enable or disable Wi-Fi. The `WifiManager.setWifiEnabled()` method always returns `false`.

If you need to prompt users to enable and disable Wi-Fi, use a [settings panel](#).

Restrictions on direct access to configured Wi-Fi networks

To protect user privacy, manual configuration of the list of Wi-Fi networks is restricted to system apps and [device policy controllers \(DPCs\)](#). A given DPC can be either the device owner or the profile owner.

If your app targets Android 10 or higher, and it isn't a system app or a DPC, then the following methods don't return useful data:

- The `getConfiguredNetworks()` method always returns an empty list.

★ **Note:** If a carrier app calls `getConfiguredNetworks()`, the system returns a list containing only the networks that the carrier configured.

- Each network operation method that returns an integer value—`addNetwork()` and `updateNetwork()`—always returns `-1`.
- Each network operation that returns a boolean value—`removeNetwork()`, `reassociate()`, `enableNetwork()`, `disableNetwork()`, `reconnect()`, and `disconnect()`—always returns `false`.

If your app needs to connect to Wi-Fi networks, use the following alternative methods:

- To trigger an instant local connection to a Wi-Fi network, use `WifiNetworkSpecifier` in a standard `NetworkRequest` object.
- To add Wi-Fi networks for consideration for providing internet access to the user, work with `WifiNetworkSuggestion` objects. You can add and remove networks that appear in the auto-connect network selection dialog by calling `addNetworkSuggestions()` and `removeNetworkSuggestions()`, respectively. These methods don't require any location permissions.

- ScanResult
- ScanResult.InformationElement
- SoftApConfiguration
- WifiConfiguration
- WifiConfiguration.AuthAlgorithm
- WifiConfiguration.GroupCipher
- WifiConfiguration.GroupMgmtCipher
- WifiConfiguration.KeyMgmt
- WifiConfiguration.PairwiseCipher
- WifiConfiguration.Protocol
- WifiConfiguration.Status
- WifiEnterpriseConfig
- WifiEnterpriseConfig.Eap
- WifiEnterpriseConfig.Phase2
- WifiInfo
- WifiInfo.Builder
- WifiManager**
- WifiManager.LocalOnlyHotspotCallback
- WifiManager.LocalOnlyHotspotReservation
- WifiManager.MulticastLock
- WifiManager.ScanResultsCallback
- WifiManager.WifiLock
- WifiManager.WpsCallback
- WifiNetworkSpecifier
- WifiNetworkSpecifier.Builder
- WifiNetworkSuggestion
- WifiNetworkSuggestion.Builder
- WpsInfo

addNetwork

Added in API level 1

Deprecated in API level 29

```
public int addNetwork (WifiConfiguration config)
```

! This method was deprecated in API level 29.

a) See [WifiNetworkSpecifier.Builder#build\(\)](#) for new mechanism to trigger connection to a Wi-Fi network. b) See [addNetworkSuggestions\(java.util.List\)](#), [removeNetworkSuggestions\(java.util.List\)](#) for new API to add Wi-Fi networks for consideration when auto-connecting to wifi. **Compatibility Note:** For applications targeting `Build.VERSION_CODES.Q` or above, this API will always fail and return `-1`.

Deprecation Exemptions:

- Device Owner (DO), Profile Owner (PO) and system apps.

Add a new network description to the set of configured networks. The `networkId` field of the supplied configuration object is ignored.

The new network will be marked DISABLED by default. To enable it, called [enableNetwork\(int, boolean\)](#).

Parameters

config	WifiConfiguration: the set of variables that describe the configuration, contained in a WifiConfiguration object. If the WifiConfiguration has an Http Proxy set the calling app must be System, or be provisioned as the Profile or Device Owner.
---------------	---

Returns

int	the ID of the newly created network description. This is used in other operations to specified the network to be acted upon. Returns <code>-1</code> on failure.
------------	--

- Enums
- android.net.wifi.aware
- android.net.wifi.hotspot2
- android.net.wifi.hotspot2.omadm