

WBA OpenRoaming on Zebra Android Devices



ZEBRA

Integrator Guide

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Introduction

OpenRoaming™, a trademarked specification of the Wireless Broadband Alliance (WBA), brings together Wi-Fi network providers and identity providers in a global roaming federation that allows wireless devices to connect automatically and securely to OpenRoaming-enabled networks across the globe.

Under WBA guidance, the OpenRoaming federation enables end users to connect to networks managed by Access Network Providers (ANP) such as airports, shopping malls, operators, hospitality centers, sports venues, corporate offices, and municipalities, while using credentials managed by Identity Providers (IDP) such as operators, internet providers, social media providers, device manufacturers, and cloud providers.

OpenRoaming is based on the industry standards Wi-Fi Alliance Passpoint (Hotspot 2.0) and RadSec protocol, which ensure end-to-end security. Passpoint protocol ensures enterprise-grade wireless security supporting various EAP authentication methods.

Using the Passpoint Roaming Consortium Organization Identifiers (RCOIs), OpenRoaming supports both settlement-free use cases where free Wi-Fi is offered to end users, as well as settled, or paid, use cases. The settlement-free RCOI is 5A-03-BA-00-00, and the settled is BA-A2-D0-xx-xx, for example BA-A2-D0-00-00. Different bits in the RCOI octets set various policies, such as Quality of Service (QoS), Level of Assurance (LoA), Privacy, and ID-type.

For more information, go to the Wireless Broadband Alliance OpenRoaming website: <https://wballiance.com/openroaming/>

Supported Zebra Devices

All Zebra devices running Android 13 and above support this functionality.

- TC21, TC21 HC
- TC26, TC26 HC
- TC22
- TC27
- TC52, TC52 HC
- TC52x, TC52x HC
- TC57
- TC57x
- TC72
- TC77
- TC52AX, TC52AX HC
- TC53
- TC58
- TC73
- TC78
- ET40
- ET45
- ET60
- HC20
- HC50
- MC20
- RZ-H271
- CC600, CC6000
- WT6300

For the complete product list go to <https://www.zebra.com/us/en/support-downloads.html>

OpenRoaming Identity Providers List

To connect to an OpenRoaming network, a device must be configured with an OpenRoaming profile installed from the WBA website, from the respective application stores (Google Play or App Store), or directly from the web. Zebra devices support OpenRoaming profile download and installation from any identity provider.

Installation saves a Wi-Fi Passpoint profile on the device, which includes the required credentials to connect to any OpenRoaming network. For more information, go to the WBA OpenRoaming signup page: <https://wballiance.com/openroaming-signup/>



This page lists the OpenRoaming™ LIVE supporters. Zebra Technologies actively supports and participates as an OpenRoaming federation member.

OpenRoaming™ LIVE Supporters

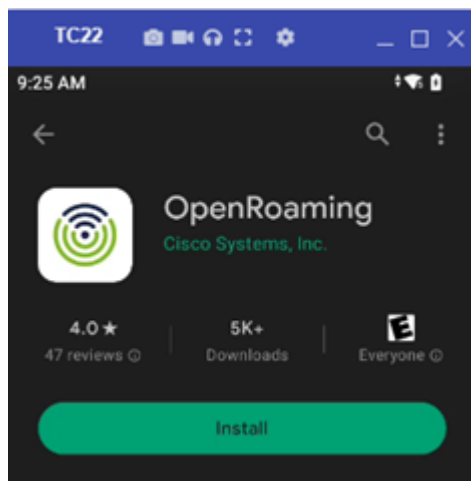
OpenRoaming™ is supported by a federation of networks and identity providers, allowing users to join any network managed by a federation member.

[JOIN TODAY](#)

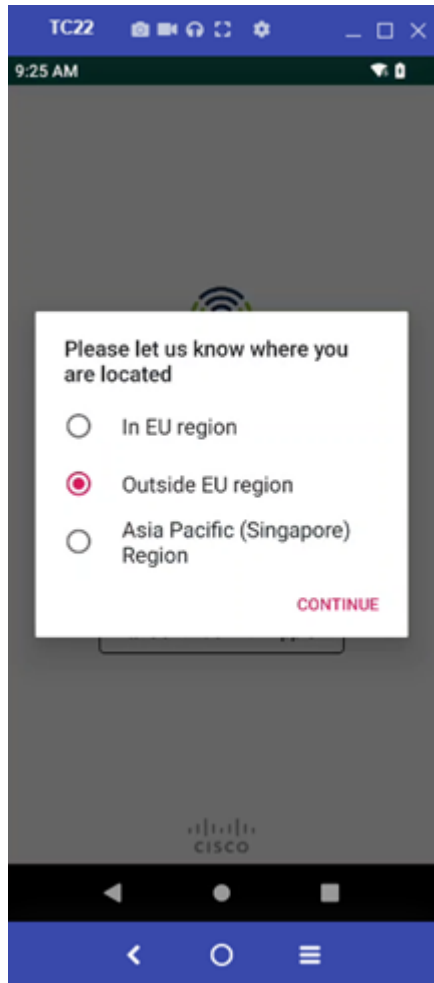


Connecting a Cisco OpenRoaming Profile with a Zebra Device

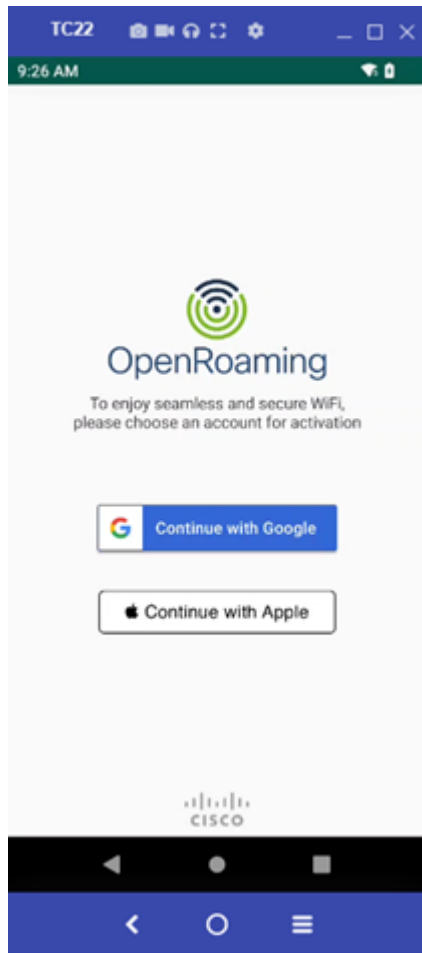
1. Connect the Zebra device to any Internet-enabled Wi-Fi or use a cellular SIM with an active data connection on the device.
2. Log in to the Google Play store with Google credentials and install the OpenRoaming application:
https://play.google.com/store/apps/details?id=com.cisco.or&hl=en_US&gl=US



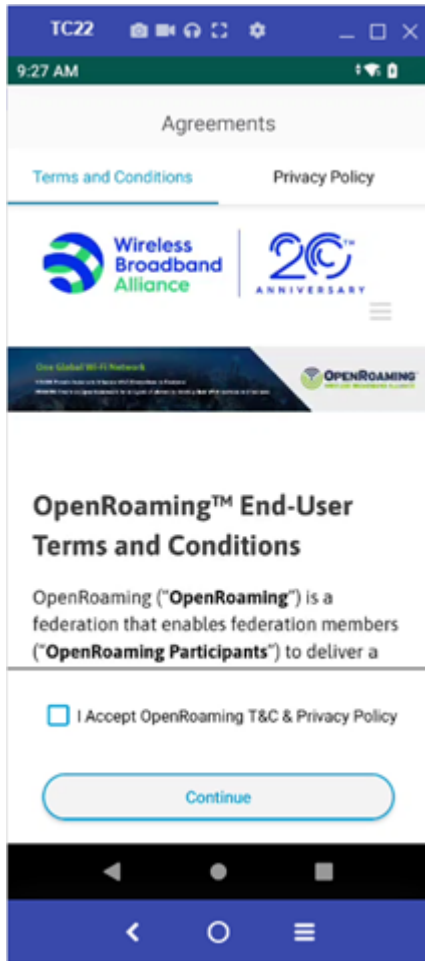
- When installation completes, open the OpenRoaming application, select an option based on the AP location, and tap **Continue**. For example, select **Outside EU region** if you are connecting to an AP in the US.



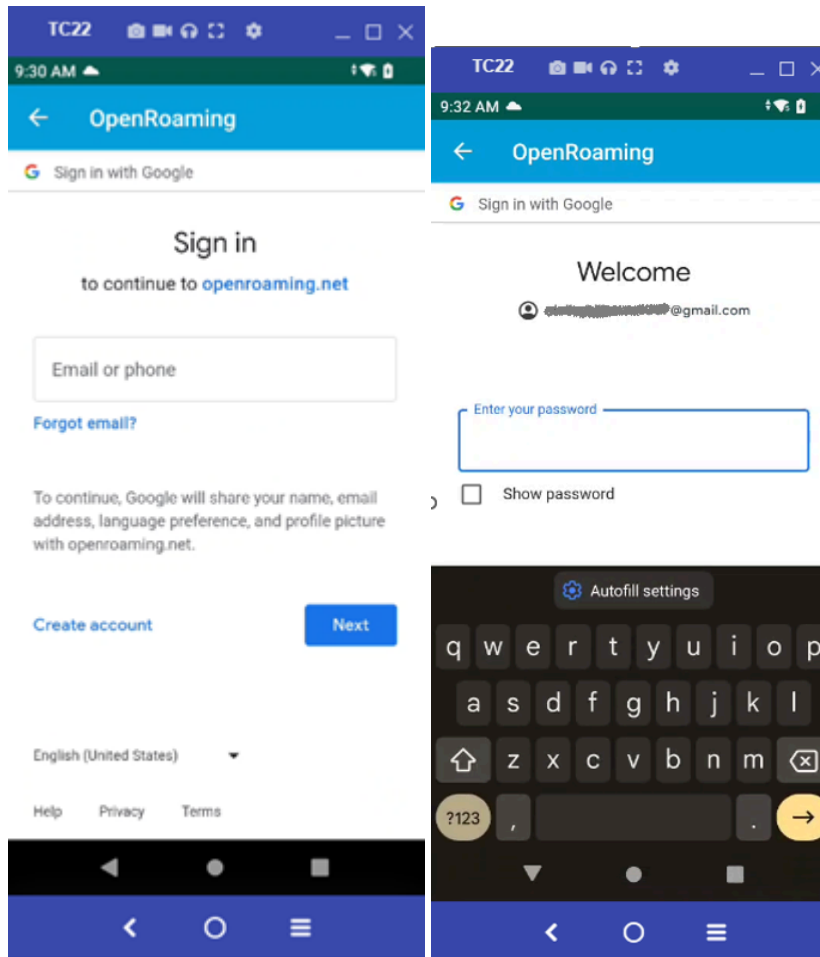
4. Select whether to continue with a Google ID or an Apple ID.



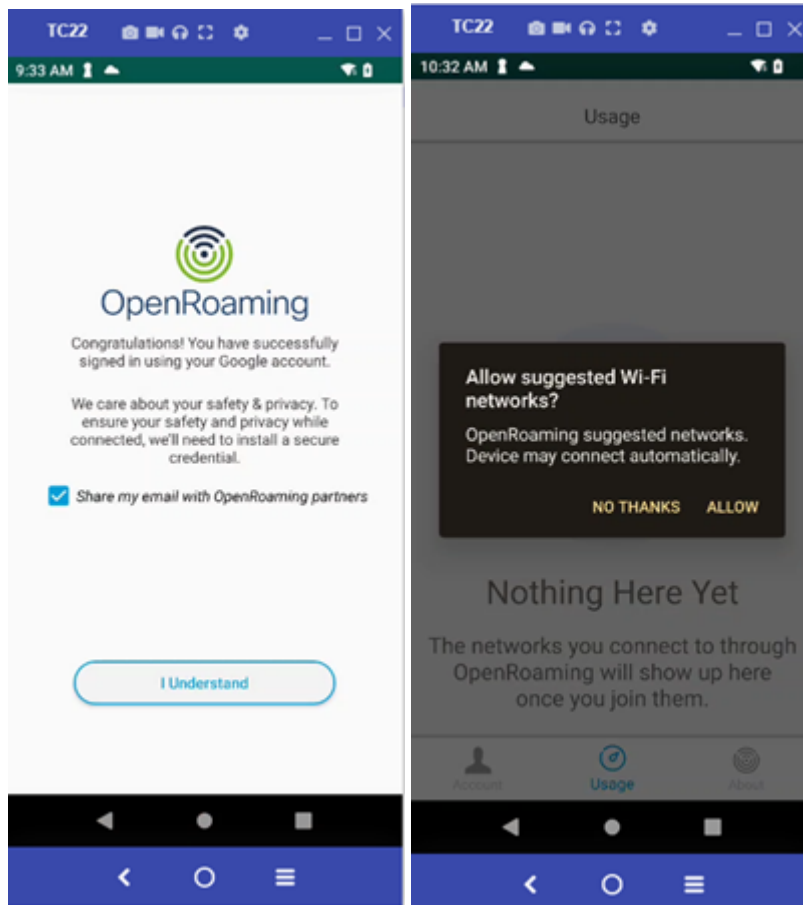
5. Select the **I Accept OpenRoaming T&C & Privacy Policy** checkbox and tap **Continue**.



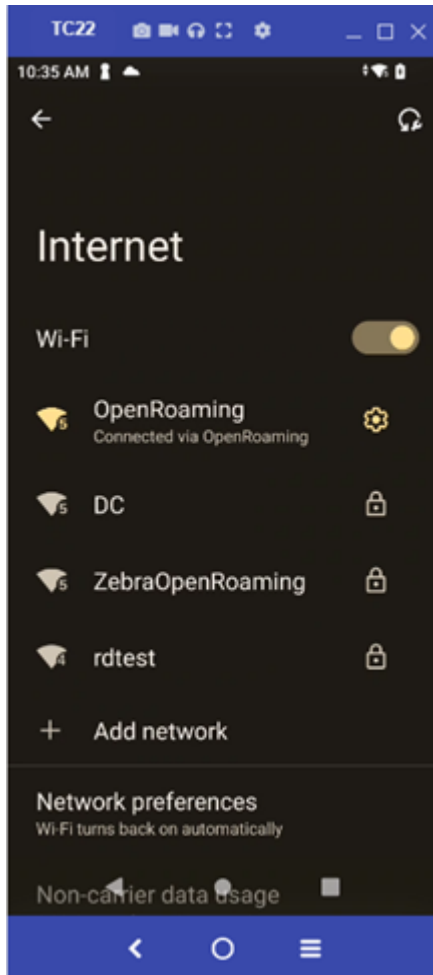
6. Enter the Google ID and credentials for identity verification.



7. Tap **Allow** to allow suggested Wi-Fi networks. If using a cellular connection, the Zebra device auto-connects to the OpenRoaming WLAN profile.



8. If not using a cellular connection, go to Wi-Fi settings. The Zebra device auto-connects to the **OpenRoaming** SSID in the Wi-Fi scan list when you disconnect from the current WLAN profile.



OpenRoaming Configuration on a Cisco Network

To host OpenRoaming services through Cisco Spaces, the Cisco infrastructure requires the following.

- An active Cisco Spaces account
- A Cisco wireless network with either a Cisco AireOS or Cisco IOS wireless controller supported
- The wireless network added to the Cisco Spaces account
- A Cisco Spaces Connector

References and Configuration Guides

- Cisco Spaces
 - https://www.cisco.com/c/en_ca/solutions/enterprise-networks/dna-spaces/index.html
- Downloading and Deploying Cisco Spaces
 - https://www.cisco.com/c/en/us/td/docs/wireless/spaces/connector/2-x/config/b_connector/m_ova.html
- Cisco Spaces Setup Guide
 - <https://spaces.cisco.com/setupguide/>
- OpenRoaming Configuration on Cisco WLC
 - https://www.cisco.com/c/en/us/td/docs/wireless/controller/9800/17-3/config-guide/b_wl_17_3_cg/m_hotspot-2.html

