Cloudpath
Enrollment System

End-User Experience for Windows Phones

Software Release 5.1

May 2017

Summary: This document describes the end-user experience for Windows Phones that are using Cloudpath to onboard to a secure wireless network.
Document Type: Information
Audience: Network Administrator, End-User

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Overview

The Cloudpath Enrollment System (ES) automates WPA2-Enterprise configuration on any device that connects to the network and automatically connects the device to a secure SSID. This Automated Device Enablement (ADE) means authorized devices onboard simply and securely, with the appropriate level of access.

Cloudpath supports all operating systems including Windows, Mac OS X, iOS, Android, Linux, Chromebooks, and more.

This document provides an example of the end-user process for using Cloudpath to migrate a Windows Phone to the secure network.

Supported Versions

Cloudpath supports *Windows Phone version 8.1* TLS and PEAP configurations.

Cloudpath supports *Windows Phone version 8.0* for PEAP configurations.

> **Note >>**
> Windows Phone 8.0 does not support TLS.

This document provides an example of the prompts a user might see when using the Cloudpath application. Depending on the configuration set up by the network administrator, the device manufacturer, and operating system, the user prompts can vary.

Additionally, Cloudpath is a highly-customizable application. Screen icons, color schemes, and messaging can all be customized by the network administrator. This guide provides examples with generic screens and messaging, which might be different than what is displayed on the device.

Cloudpath User Experience

Cloudpath provides the prompts that guide the user through the sequence of steps that make up the enrollment workflow. During this process, the user enters information as requested, and makes selections about user type, device type, among others.

User Prompts

This section displays the user prompts for a typical enrollment workflow. The sequence of steps for the enrollment differ, depending on the selection that is made.

Welcome Screen With AUP

When the user enters the enrollment URL on their device, the login (or welcome) screen displays. The login screen is typically customized with the logo, colors, and text for the organization or institution. The screens in this example use the default look and feel of the application.

Note >>

If you have set up a captive portal, the user connects to onboarding SSID and is redirected to the Cloudpath *Welcome* page to start the enrollment process.

FIGURE 1. Welcome Screen
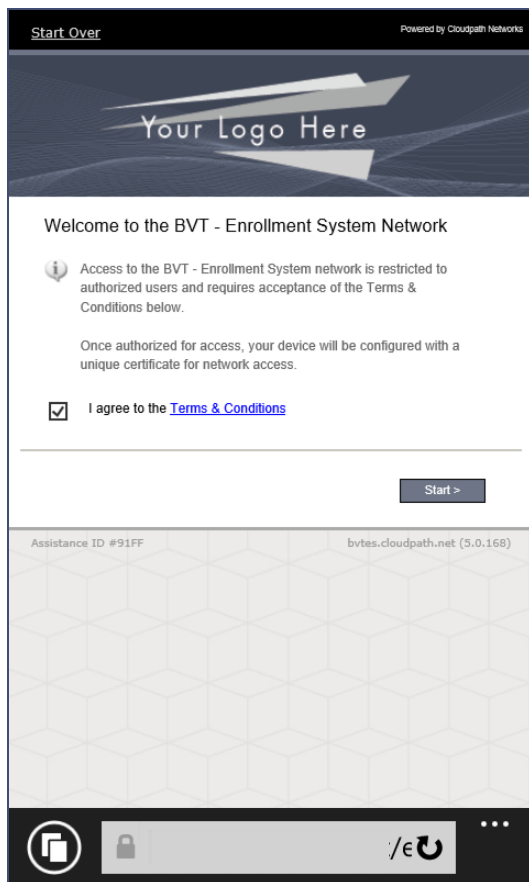
An acceptable use policy (AUP) prompt displays a message and requires that the user signal acceptance to continue. The *Welcome* text and *Start* button can be customized.

Tap *Start* to continue.

User Type

If required by the network, the user might see a User Type prompt. For example, an employee might be required to enter domain credentials, and a Guest or Partner might be required to enroll using their social media credentials.

FIGURE 2. User Type Prompt
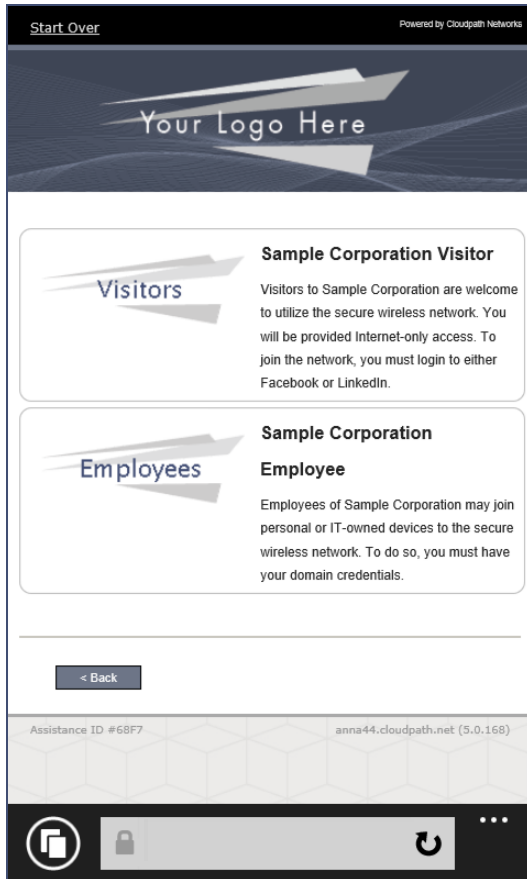
Select the user type to continue. This example follows the *Employee* workflow branch.

User Credentials

If required by the network, a prompt similar to the one below requires the user to enter network credentials.

FIGURE 3. User Credential Prompt

Enter the user credentials and tap *Continue*.

Device Type

If required by the network, the user might see a Device Type prompt. For example, a Personal Device selection might add a prompt for a MAC address, and a IT-Issued Device would be allowed to bypass the MAC address prompt.
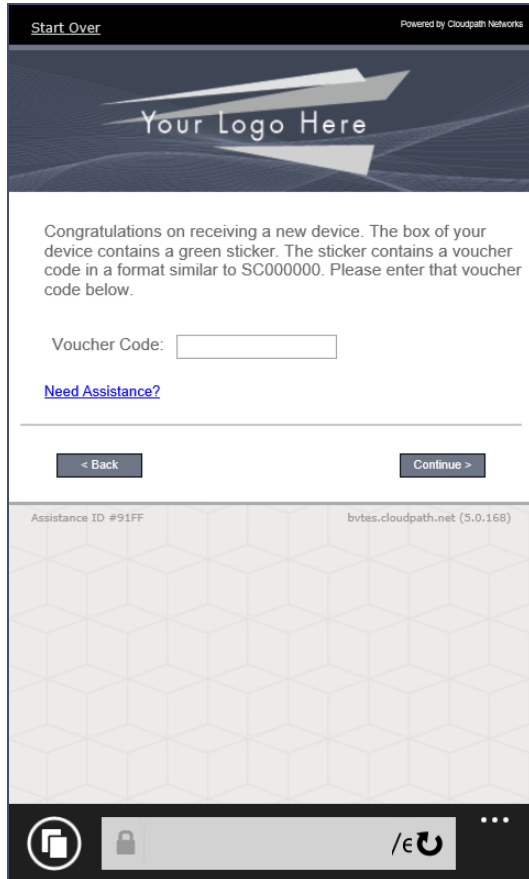
FIGURE 4. Device Type Prompt
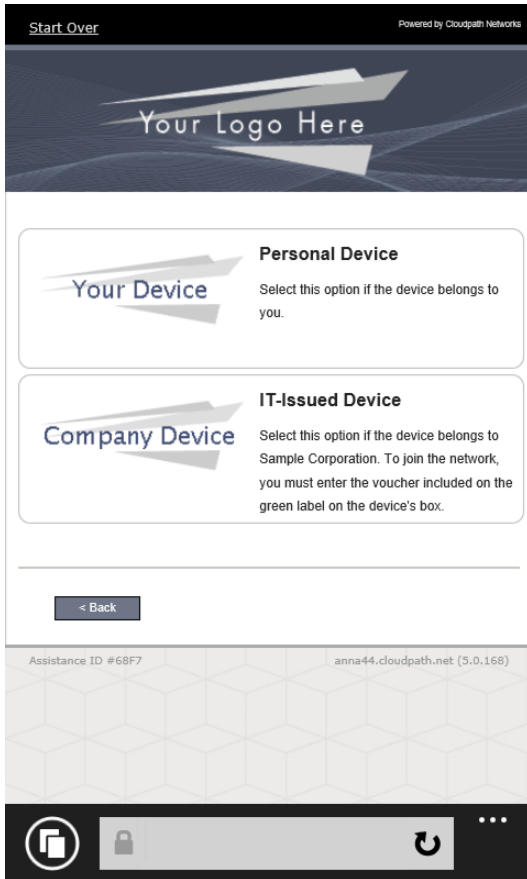
Select a device type to continue. This example follows the *IT-Issued Device* enrollment workflow.

Voucher Code

Your network might require that you enter a voucher (one-time password) as an additional verification step. Vouchers are typically sent email or SMS from a network sponsor or administrator.
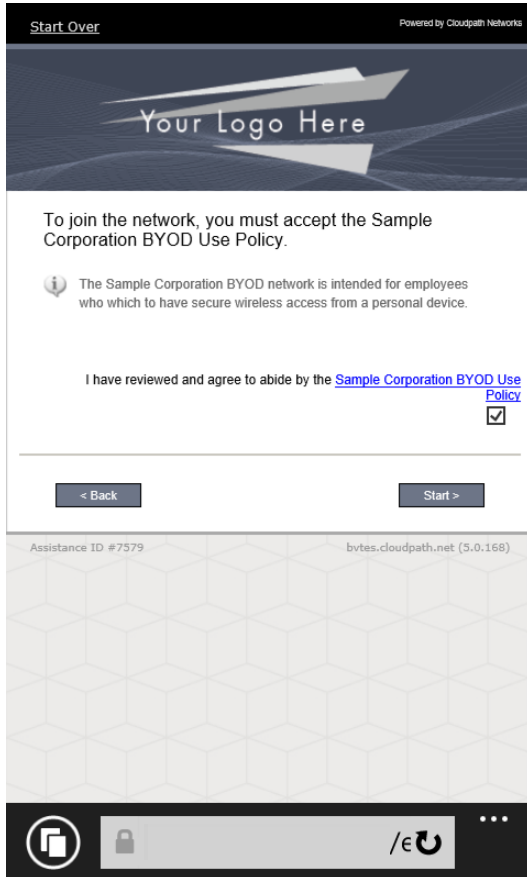
FIGURE 5. Voucher Code Prompt

Enter your voucher and tap the *Continue* button to continue.

BYOD Policy

Typically, you must agree to the terms and policies of the network before you can continue.

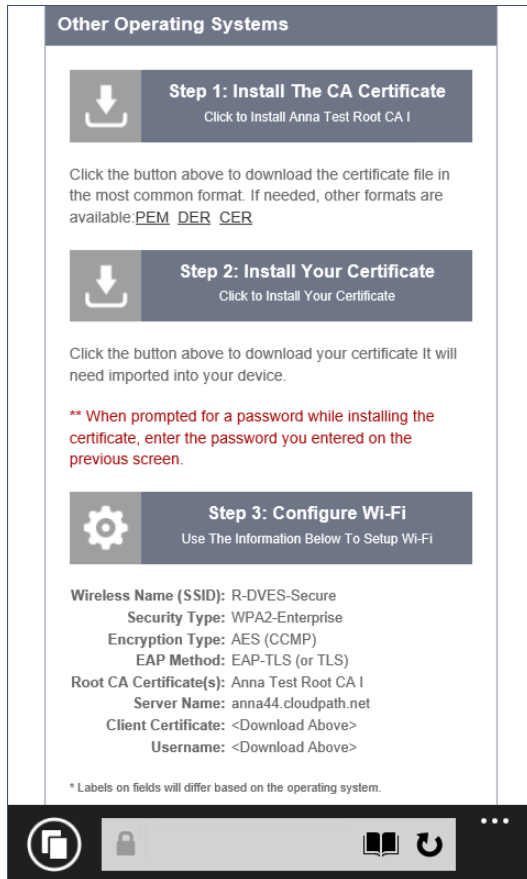**FIGURE 6.** Accept BYOD Policy Prompt

Tap *Start* (or *Continue*) to continue.

Windows Phone Configuration Instructions

The application detects the user agent for a Windows Phone and provides the correct configuration instructions. Windows Phone instructions are displayed on the *Other Operating Systems* tab.

FIGURE 7. Configuration for Windows Phones
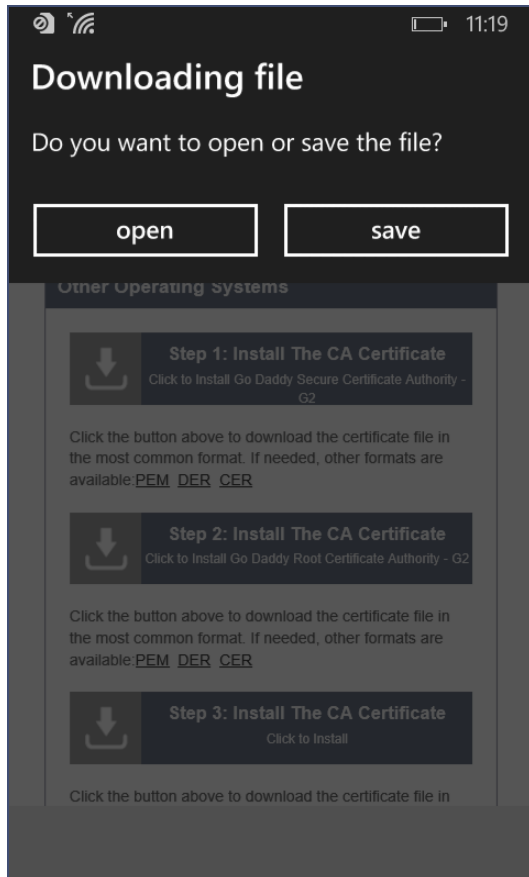

> **Note >>**
> The certificate information is not populated on the configuration step until the certificates have been downloaded.

This screen includes the steps to install the certificates and to configure the device.

Download CA Certificates

The first step in the instructions prompts you to download the CA certificate.
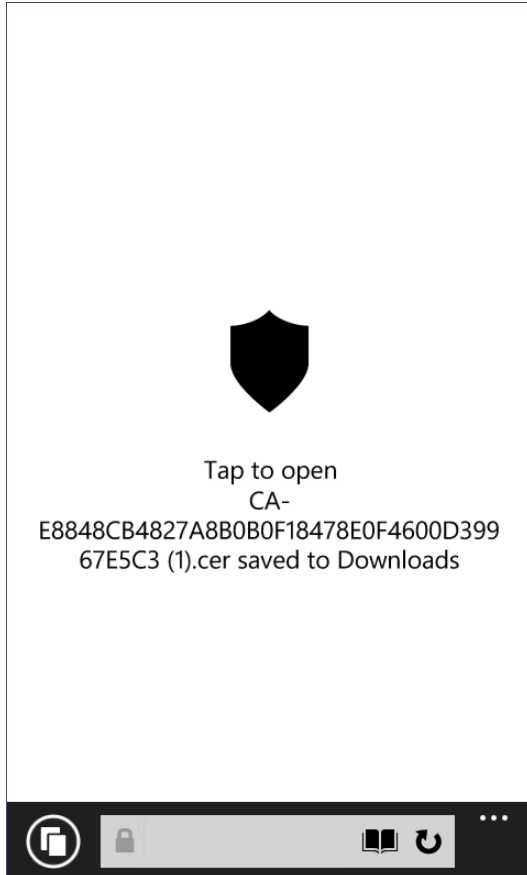
FIGURE 8. Download File

Tap *Save* to continue.

Start CA Certificate Installation

Tap the certificate installation screen to start the installation.

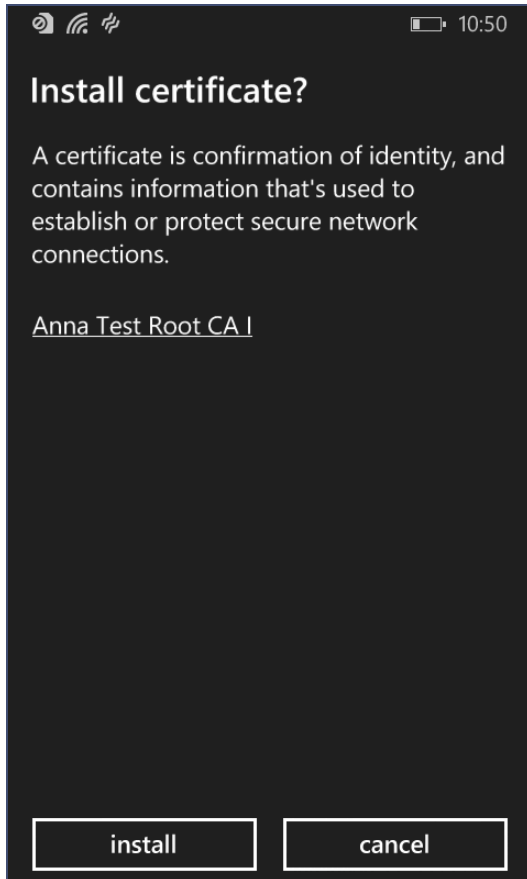**FIGURE 9.** Tap Screen to Open

Continue with the certificate installation.

Install CA Certificate

After the CA certificate is downloaded, you are prompted to install it on the device.
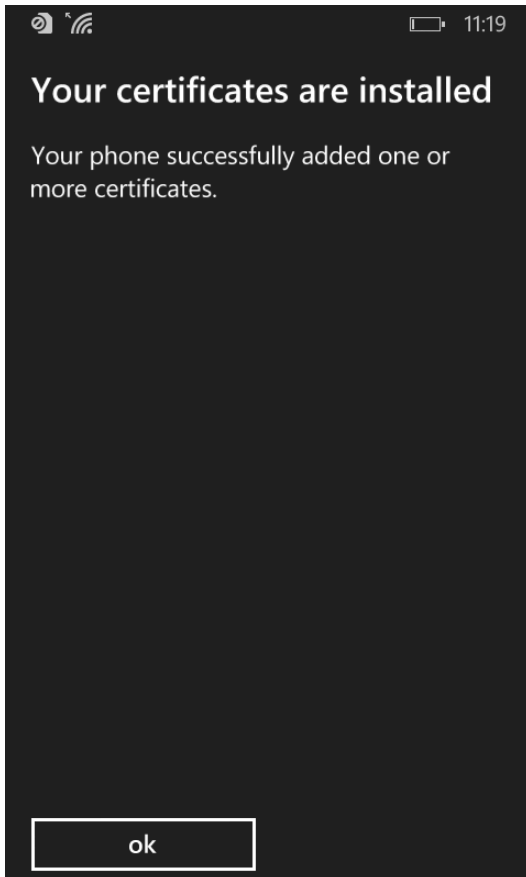
FIGURE 10. Install CA Certificate

Tap *Install* to continue.

CA Certificates installed

The CA certificate has been downloaded and installed when you receive this confirmation screen.

**FIGURE 11.** Certificates are Installed

Tap the *ok* button.

Tap the *Back* button (left arrow at the bottom on your phone) to return to the configuration instructions page. If there are more CA certificates, you will repeat the CA certificate installation. Otherwise, continue with the user certificate installation.

Download Your Certificates

After the CA certificates are installed, you are prompted to download the user certificates.
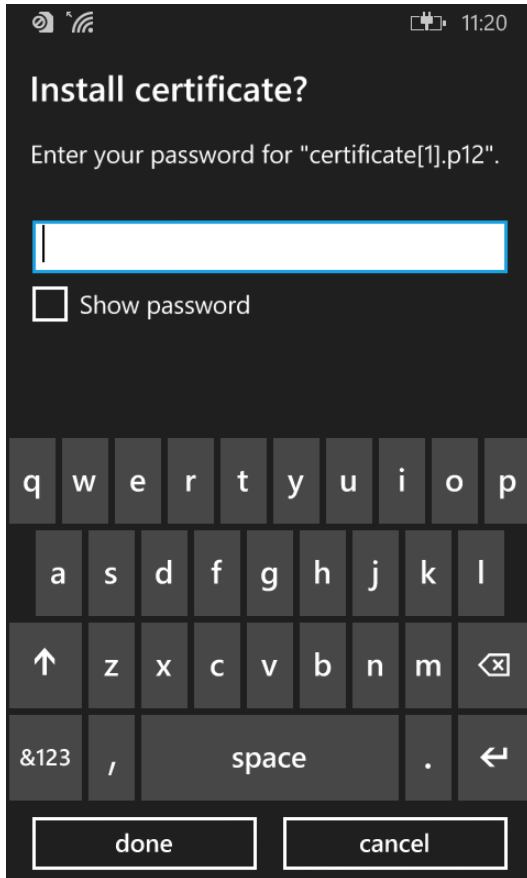
FIGURE 12. Download File
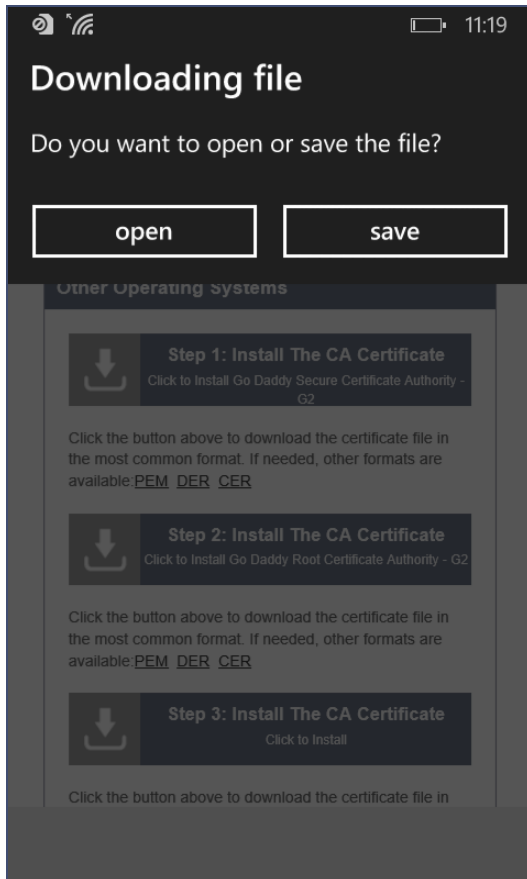
Tap *Save* to continue.

Enter User Certificate Password

The Windows Phone OS requires that you enter a password to import user certificates.

FIGURE 13. Enter User Certificate Password

Enter the password from your user credentials. For example, if your user credentials are username=bob and password=bob1, then enter *bob1* for the user certificate password.
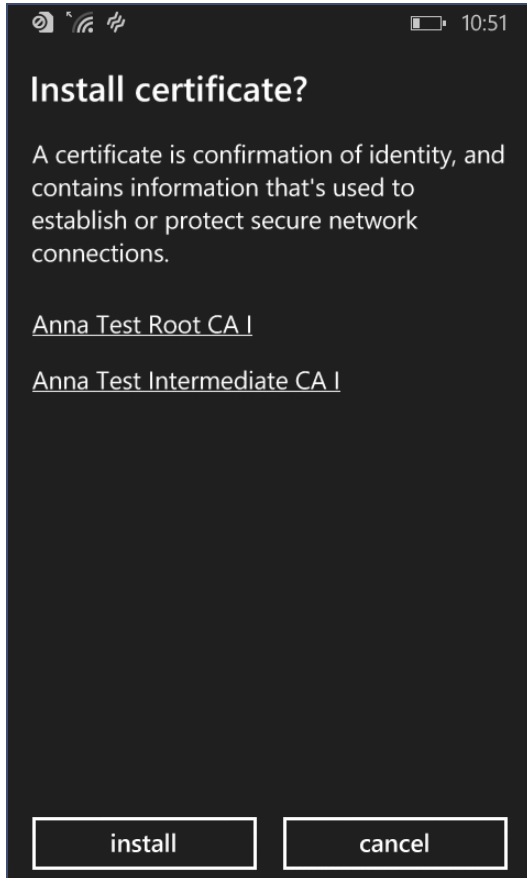
Tap *done* to continue.

Install User Certificates

Install the user certificates provided for this device.

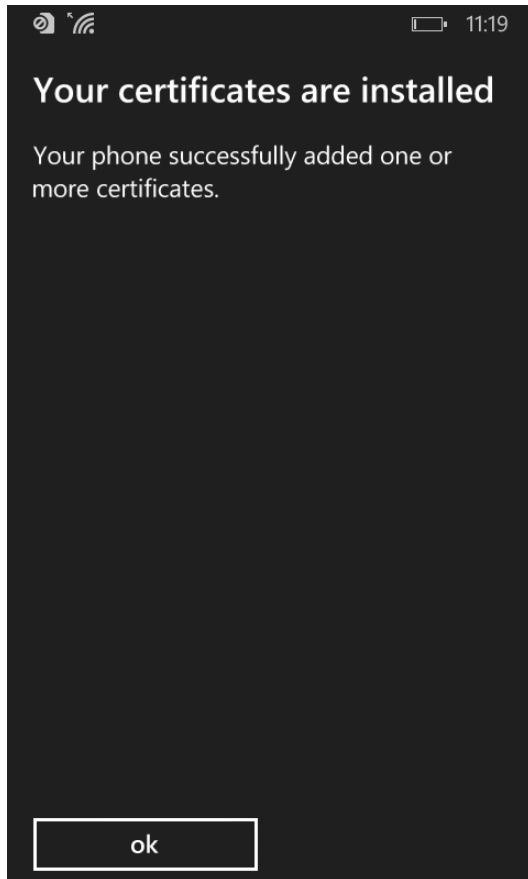**FIGURE 14.** Install User Certificates

Tap *Install* to continue.

Certificates installed

The user certificate has been downloaded and installed when you receive this confirmation screen.

FIGURE 15. Certificates are Installed

Tap the *ok* button.

Tap the *Back* button (left arrow at the bottom on your phone) to return to the configuration instructions page. Continue with the Wi-Fi Configuration.

Wi-Fi Configuration

After you download and install the certificates, make note of the *Wireless Network Name*, *Root CA Certificate*, and the *Client Certificate*. You need this information to connect to the secure network.

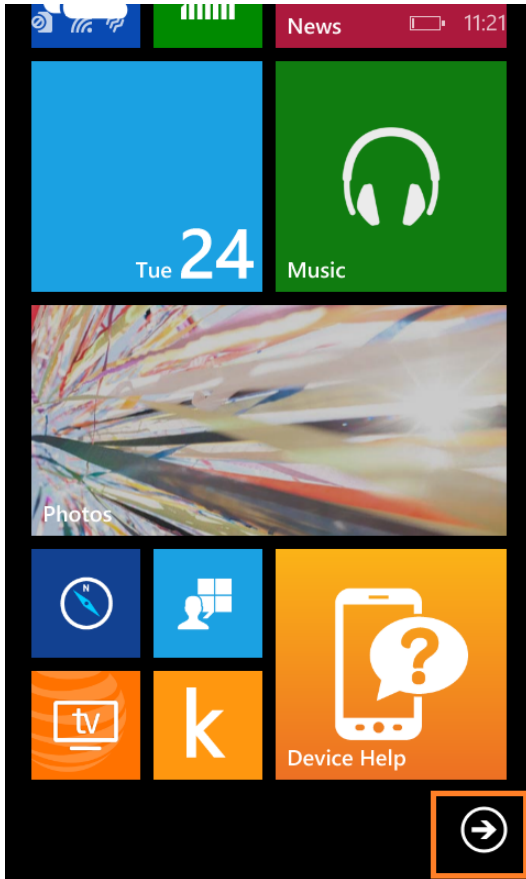**FIGURE 16.** Wi-Fi Configuration

Continue to the next screen to configure Wi-Fi settings on the Windows Phone.

Access Device Menu

After the Root CA certificate and user certificate have been installed on the device, return to the home screen. Swipe to the bottom of the home screen and tap the right-facing arrow.
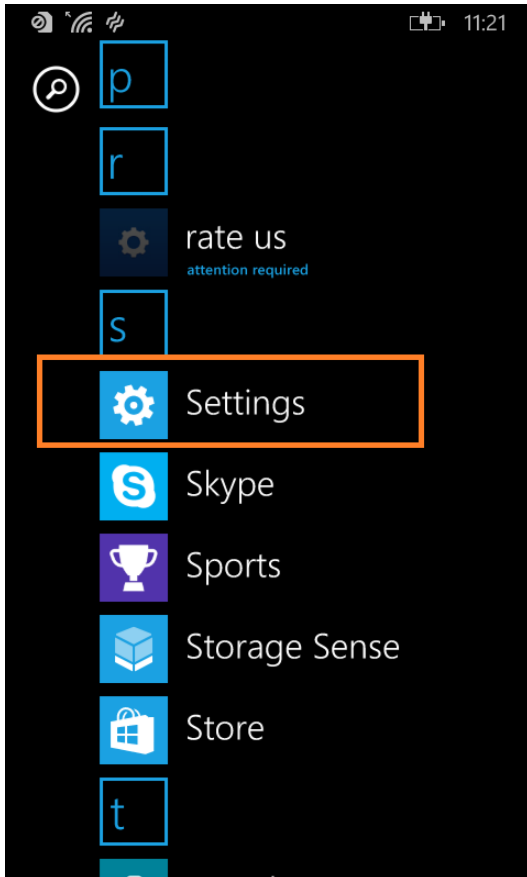
FIGURE 17. Install From Amazon Market

Continue to the next screen to locate the *Settings* on the Windows Phone.

Access Device Settings

Go to the device *Settings*.
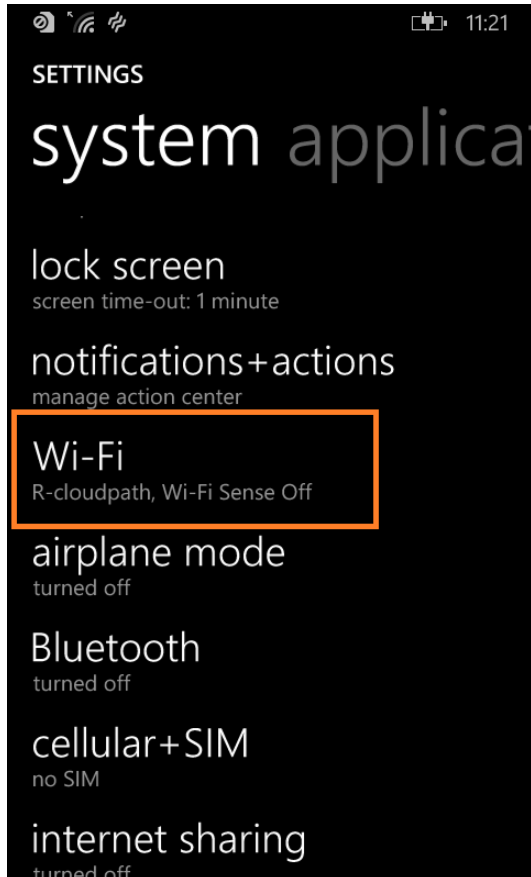
FIGURE 18. Device Settings

Tap *Settings* to continue.

Locate Wi-Fi Settings

Go to the *Wi-Fi* setting.

FIGURE 19. Wi-Fi Settings


Tap *Wi-Fi* to continue.

Wi-Fi Configuration

Tap the *Wireless Network* listed in the configuration instructions.

Configure Wi-Fi for the secure network. Be sure to select the certificate configuration settings to match the configuration instructions:

- Connect using certificate.
- Choose a certificate and select the Client Certificate from the configuration instructions.
- For Server certificate validation, select certificate authority.
- Choose a certificate and select the Root CA Certificate from the configuration instructions.
- For EAP method, select TLS.

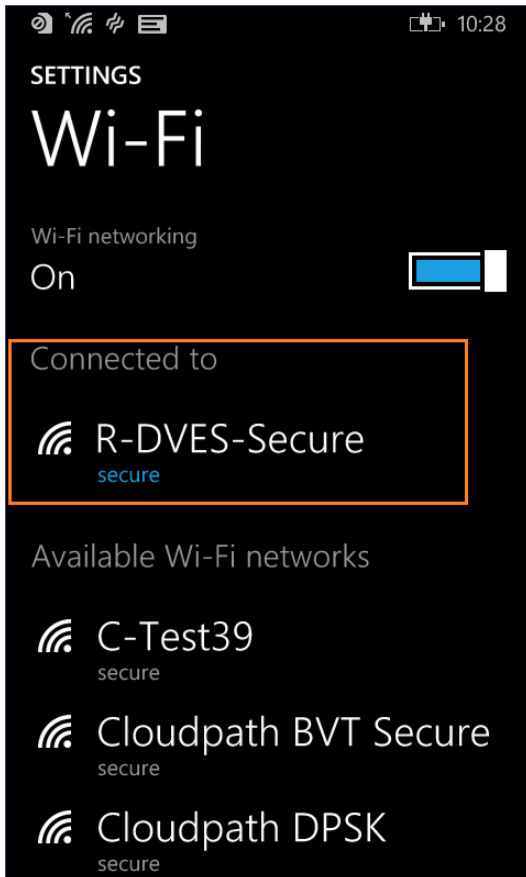**FIGURE 20.** Configure Wi-Fi Settings
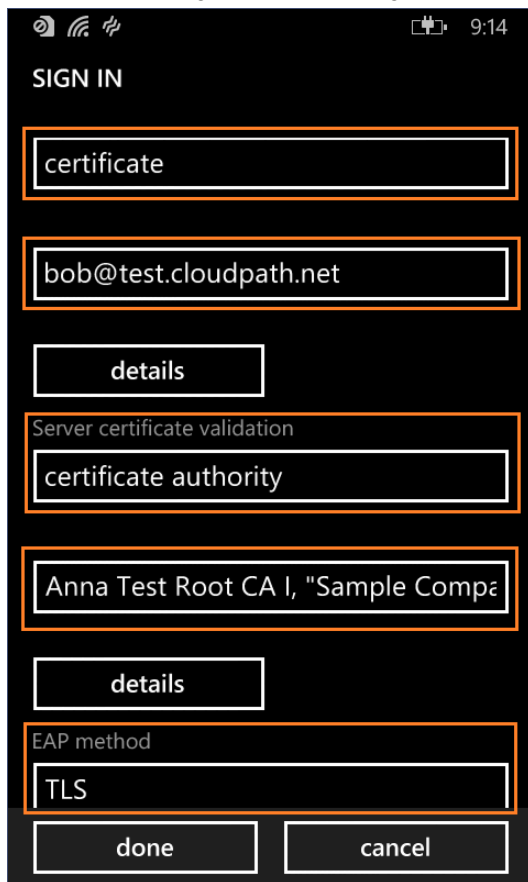
Tap *done* to continue.

Connected to Secure Network

The user should be connected to the secure network.

FIGURE 21. Secure

Common Windows Phone Issues

This section describes issues with enrollments on Windows Phone that might prompt you to contact the network help desk.

Delete Network

Sometimes, the SSID hangs on to old settings. You might try deleting the network and reconfiguring it. To delete the network, tap and hold the network name, then tap *delete*.

Device Can't Connect

If you receive a message that the phone cannot connect the secure network, this typically means that there is a problem with your configuration.

FIGURE 22. Device Can't Connect
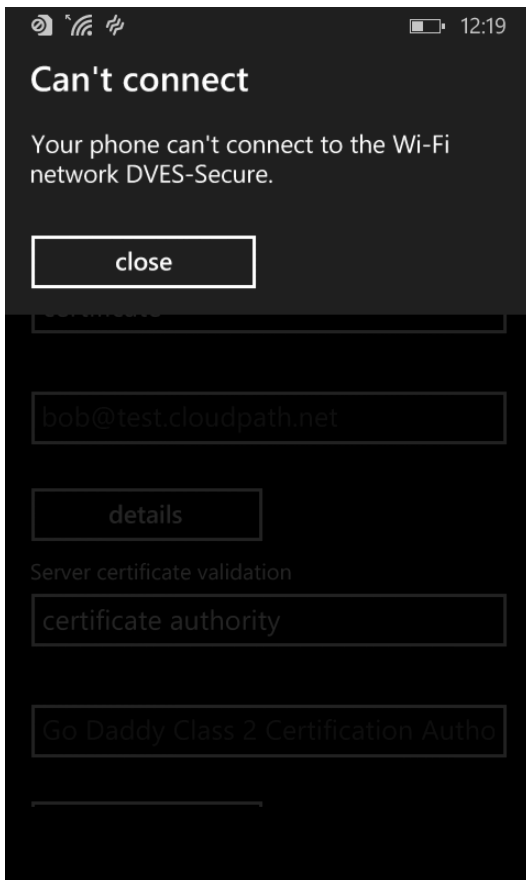
Be sure that your selections on the Wi-Fi configuration page match the settings provided on Other Operating Systems installation instructions. See "Windows Phone Configuration Instructions" on page 8.
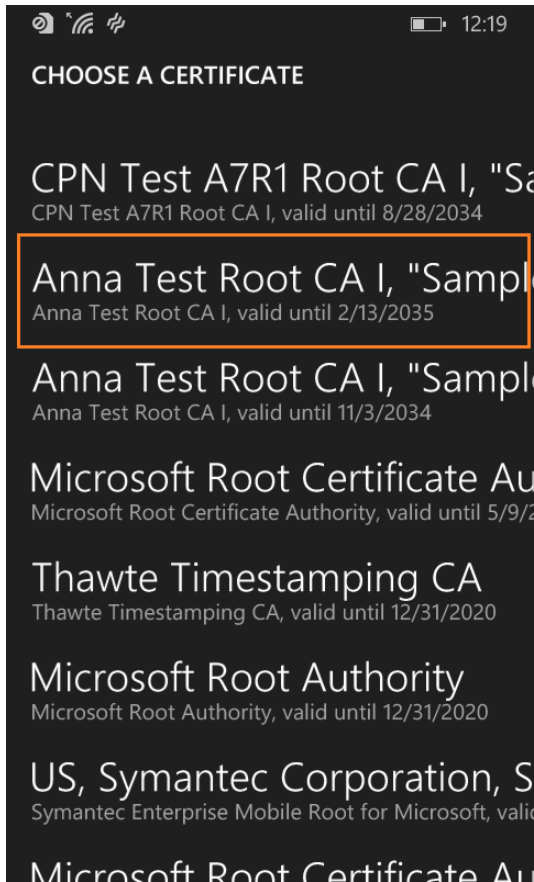
Use these settings:

- Connect using **certificate**.
- Choose a certificate to match the **Client Certificate** in the configuration instructions.

FIGURE 23. Choose A User Certificate
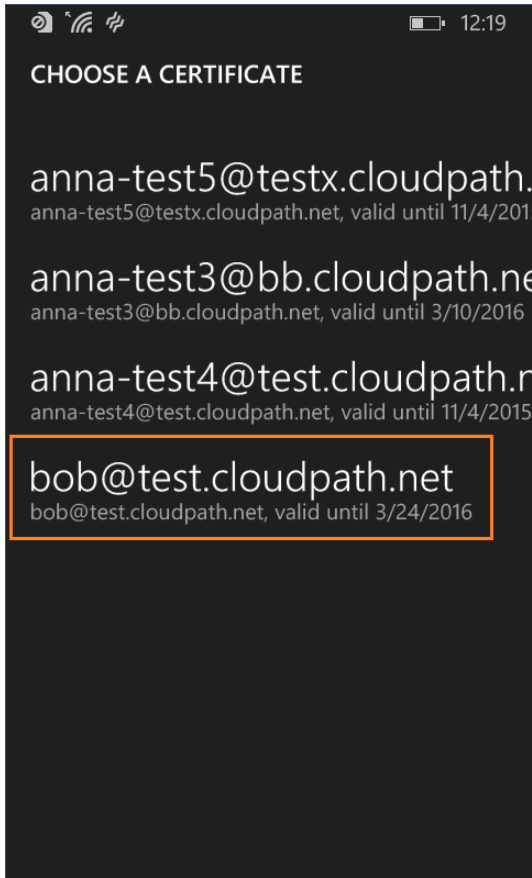
- Server Certificate Validation must be **certificate authority**.
- Choose the **Root CA Certificate** to match the configuration instructions.

FIGURE 24. Choose A Root CA Certificate

- Select **TLS** for the EAP method.

FIGURE 25. EAP Method