

Cloudpath Enrollment System

End-User Experience for Windows Phones

Software Release 5.0 December 2016

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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Software Release 5.0 December 2016

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End-User Experience for Windows Phones

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.



Start Over	Powered by Cloudpath Networks
Your Logo	Here
-	
Welcome to the BVT - Enrollmen	t System Network
 Access to the BVT - Enrollment Syster authorized users and requires accepta Conditions below. 	n network is restricted to nce of the Terms &
Once authorized for access, your devic unique certificate for network access.	ce will be configured with a
I agree to the <u>Terms & Conditions</u>	
	Start >
Assistance ID #91FF	bvtes.cloudpath.net (5.0.168)
	 ئ∢ت

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

Start Over	Powered by Cloudpath Networks
	/
Your Logo Here	
	<u></u>
Your username and password are required to access the	network.
Username:	
Password	
Need Assistance?	
< Back	Continue >
Assistance ID #91FF bvtes.	cloudpath.net (5.0.168)
	/∈ U

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

Start Over	Powered by Cloudpath Networks
Your Lo	go Here
Your Device	Personal Device Select this option if the device belongs to you.
Company Device	IT-Issued Device Select this option if the device belongs to Sample Corporation. To join the network, you must enter the voucher included on the green label on the device's box.
< Back Assistance ID #68F7	anna44.cloudpath.net (5.0,168)
	 ت

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

<u>Start Over</u>	Powered by Cloudpath Networks
Your Logo	o Here
Congratulations on receiving a device contains a green sticker code in a format similar to SC0 code below.	new device. The box of your . The sticker contains a voucher 00000. Please enter that voucher
Voucher Code:	
Need Assistance?	
< Back	Continue >
Assistance ID #91FF	bvtes.cloudpath.net (5.0.168)
	/∈ ひ

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

Start Over	Powered by Cloudpath Networks
Your Log	go Here
To join the network, you m Corporation BYOD Use Po	ust accept the Sample plicy.
The Sample Corporation BYC who which to have secure wir	D network is intended for employees eless access from a personal device.
I have reviewed and agree to	abide by the <u>Sample Corporation BYOD Use</u> Policy V
< Back	Start >
Assistance ID #7579	bvtes.cloudpath.net (5.0.168)
	 ر€ ن

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.



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 ð) `@ **□**• 11:19 Downloading file Do you want to open or save the file? open save the most common format. If needed, other formats are

Tap Save to continue.

Enter User Certificate Password

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

IGURE	GURE 13. Enter User Certificate Password							
ð) `((Ĩ.		⊑ ₩ ⊒• 11:20					
Inst	all	cert	tific	ate	?			
Enter	r you	r pas	swor	d for	"cert	ificat	:e[1].p	012".
 	Show	pass	sword	ł				
q v	wertyuiop							
а	s	d	f	g	h	j	k	1
↑	z	x	с	v	b	n	m	$\overline{\aleph}$
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	do	one][can	cel	

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.



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

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	¢	rate us		
	S			
		Settings		
	8	Skype		
	$\mathbf{\nabla}$	Sports		
		Storage Sense		
		Store		
	t			
	- 0-			

Tap Settings to continue.

Locate Wi-Fi Settings

Go to the Wi-Fi setting.

FIGURE 19. Wi-Fi Settings



turned off

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
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ð) (k. 4)	⊑ # ⊒• 9:	14
SIGN IN		
		_
certificate		
bob@test.cloudpa	ath.net	
details		
Server certificate validation		
certificate authority		
Anna Test Root C	A I, "Sample Comp	ć
details		
EAP method		
TLS		
done	cancel	

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

9) <i>(</i> @, #	■ • 12:19
Can't connect	
Your phone can't connect to the network DVES-Secure.	e Wi-Fi
close	

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

details	
EAP method	
TLS	
done	cancel