

Cloudpath Enrollment System

End-User Experience for Mac OS X Devices

Software Release 5.1 May 2017

Summary: This document describes the end-user experience for devices running a Mac OS X operating system and using Cloudpath to onboard to a secure wireless network. Document Type: Information Audience: Network Administrator, End-User



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Software Release 5.1 May 2017

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End-User Experience for Mac OS X Devices

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 device running Mac OS X to the secure network.

Supported Versions

Cloudpath supports Mac OS X version 10.7, and later, with automated configuration. Versions 10.5 and 10.6 are supported with manual configuration.

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.

Based on the information provided from the enrollment prompts, the Cloudpath wizard (or network profile) contains the wireless configuration to allow the device on the secure network.

Enrollment User Prompts

This section displays the user prompts for a typical enrollment workflow. The sequence of steps for the enrollment can 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

	Your Logo Here
We	Icome to the BVT - Enrollment System Network
į	Access to the BVT - Enrollment System network is restricted to authorized users and requires acceptance of the Terms & Conditions below.
	Once authorized for access, your device will be configured with a unique certificate for network access.
1	I agree to the <u>Terms & Conditions</u>
	Start >

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.

Click 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
Your username and passw	ord are required to access the network.
Username:	
Password:	
>	
Need Assistance?	
< Back	Continue >
Assistance ID #8828	bvtes.cloudpath.net (5.0.168)

Enter the user credentials and click 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 #8828	bytes.cloudpath.net (5.0,168)

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

Start Over	Powered by Cloudpath Networks
Yo	ur Logo Here
device contains a	on receiving a new device. The box of your green sticker. The sticker contains a voucher similar to SC000000. Please enter that ow.
Voucher Code:	
Need Assistance?	
< Back	Continue >
Assistance ID #460B	bvtes.cloudpath.net (5.0.168)

Enter the voucher code and click Continue.

BYOD Policy

If configured by the network administrator, you may be prompted to agree to the terms and policies of the network before you can continue.

FIGURE 6. BYOD Policy



Click Start to continue.

After the enrollment prompts, the user will download and run the configuration Wizard to migrate the device to the secure network.

Configuration Wizard

The enrollment workflow for Mac OS X devices follows the same process as the other OSes. The user accepts the AUP, logs in with Active Directory or other credentials, then the configuration wizard runs to configure the device and migrate the user to the secure network.

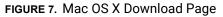
The Wizard application can be set to start automatically or start manually from the download page. There is also an option for bypassing the Wizard application and using a network profile to configure the wireless network settings. These user experience options are set in the ES Admin UI, but the user experience can also vary depending on the Java version detected (if installed), the browser, or the OS version on the device.

Download and Run Application

The default user experience setting for Mac OS X is to download the application to the user device, run the application to configure the wireless settings, and migrate the device to the secure network.

Download Page

The application detects the device user agent and displays the appropriate Mac OS X-specific download and configuration instructions.



Start Over	Powered by Cloudpath Networks
Your Logo H	lere
To access the secure network, follow th your computer's operating system.	e instructions below based on
Mac OS X Lion & Greater	
Download fo XpressCo	
Safari Users: After clicking the button, loo folder in the Downloads window and dout double-click XpressConnect to launch the	le-click to open it. Then,
Show all operating systems.	bytes,cloudpath.net (5.0.214)

Click the down arrow to download the zip file, which contains the application files.

Open Downloaded Files

Browse to the Downloads folder, open the *Cloudpath/config* folder to locate the *Cloudpath* application file.

FIGURE 8. Open Download File

\varTheta 🔿 🖸 🔯 Downloads				
	Q			
Hame –	Date Mounied	Size	Kind	
			Folde	
			Folde	
🐲 XpressConnect	Feb 6, 2015 4:07 PM	141.5 MB	Appli	
		Image: State of the state o	Bit Imm Imm Q Name A Date Modified Size V Date XpressConnect Today 2:35 PM Config Today 2:34 PM	

Double-click the Cloudpath application to start the Wizard, which runs through the configuration and migration process.

Confirm Open File

Your browser or operating system may prompt you to confirm that you want to open the application file.

FIGURE 9. Confirm Open File



Click Open to continue.

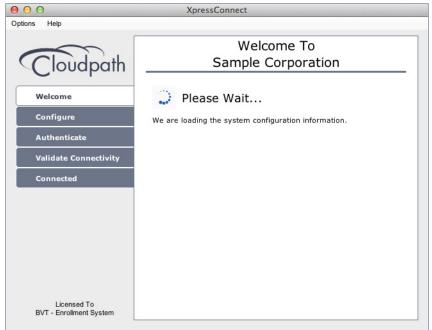
Wizard Application User Experience

After the user has gone through the enrollment prompts, the Wizard runs to configure the wireless network settings on the device.

Loading System Configuration

The Wizard opens and begins the configuration process.

FIGURE 10. Please Wait



The configuration process takes less than a minute.

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Prompt for Privileges

The certificate installation requires an administrative password.

FIGURE 11. Prompt For Privileges

000	XpressConnect
Options Help	
	Welcome To
Cloudpat	Sample Corporation
Welcome	Administrator Privileges Required:
Configure	To allow XpressConnect to configure your computer, please enter the user name and password for an administrative account on your computer.
Authenticate	
Validate Connectivity	Network Wizard requires that you type your
Connected	
	Name Ger Name Password Canvel OK
	Enter Your Computer Admin Account & Password, Not Your Network Password
Licensed To BVT - Enrollment System	< Back

The Mac OS X system prompts for each certificate installed on the device. If multiple certificates are required, you may be prompted for each certificate.

Administrator Credentials

The operating system requires elevated privileges to load certificates on the device.

FIGURE 12. Enter Administrator Credentials

000	XpressConnect	
Options Help		
Cloudpath	Welcome To Sample Corporation	
Welcome	Administrator Privileges Required:	
Configure Authenticate Validate Conn Connected	Network Wizard wants to make changes. Type your password to allow this.	Connect er name
	Password: Cancel OK	L
	Enter Your Computer Admin Account & Passw Not Your Network Password	ord,
Licensed To BVT - Enrollment System	< Back	

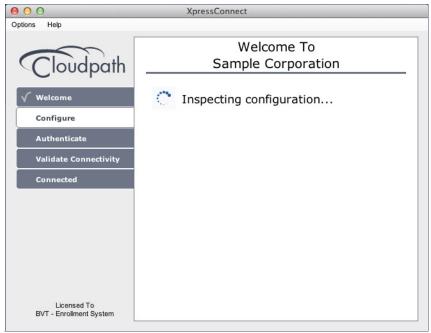
Enter the administrator password and click *OK*. The application continues with the configuration process.

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Inspecting Configuration

The application verifies that your computer's configuration is correct for the secure network.

FIGURE 13. Inspecting Configuration

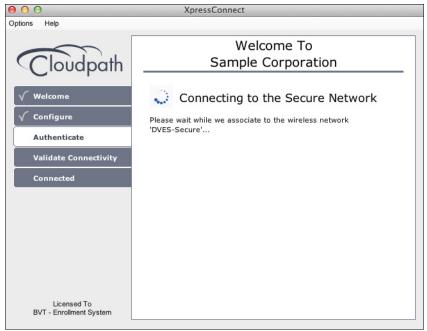


The application continues with the authentication process.

Connecting to Secure Network

The application attempts to associate to the wireless network.

FIGURE 14. Connection to Secure Network

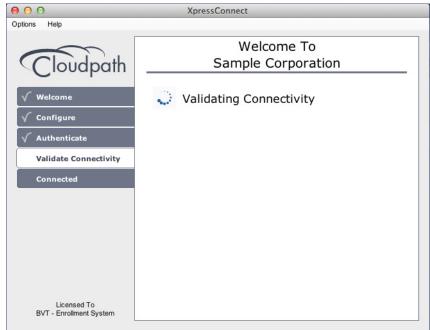


The application continues with the validation process.

Validating Connectivity

When the association with the secure network is successful, the application attempts to acquire a network address.

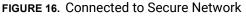
FIGURE 15. Validating Connectivity



The application continues with the connection process.

Connected to Secure Network

When the application displays a message that you have received an IP address, you are connected to the secure network.





Click Done.

Verify Network Connection

Whether using the application to migrate the device, or manually connecting to the network, use the airport icon in the menu bar to verify the network to which you are connected.

FIGURE 17. Secure Network

🤶 🔹 (100%) Wed 2:55 PM	Test	
Wi-Fi: On		
Turn Wi-Fi Off		
✓ DVES-Secure	A 🔅	
C-Test39	≙	
Cloudpath BVT Secure 🔒 🤶		
Cloudpath DPSK 🔒 😤		
CloudpathTest		

A check mark indicates the network to which you are connected.

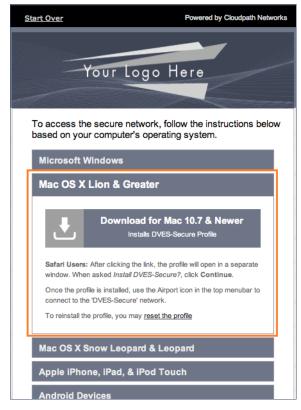
Install Network Profile to Configure Wi-Fi

Alternatively, the network administrator can set the Mac OS X user experience to download and configure the wireless settings on the device using a network profile.

Download Page

If the user experience is set to use a network profile, the Profile Download page displays after the user has gone through the enrollment workflow steps.

FIGURE 18. Download Profile Page



Click the down arrow to download the profile. If a profile has been previously installed, use the *Reset the Profile* link.

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Install Profile

You are prompted to install the network profile on the device.

FIGURE 19. Install Profile

▶ Show All	٩	
Install "DVES-Secure"? This profile will configure your Mac for the following: 2 Certificates and Wi-Fi Network.		
Show Profile	Cancel Continue	
No profiles installed	Configuration profiles specify user and system settings for this computer.	

Click *Show Profile* to view profile details. Click *Continue* (or *Install*) to install the network profile. Continue with profile installation.

Profile installed

The profile has been installed when you receive this confirmation page.

FIGURE 20. Profile Installed

00	Profiles	
Show All	Q.	
User Profiles User Profiles DVES-Secure 3 settings	DVES-Secure BVT – Enrollment System Verified	
	Signed Cloudpath Networks, Inc. Installed Apr 1, 2015	
	Settings Certificate (3) Certificate BVT – Enrollment System R Wi-Fi Network DVES-Secure	
	DETAILS	
	Certificates (2)	
	Description BVT – Enrollment System Certificate anna@cloudpath.net Expires Apr 1, 2016 Issuer BVT – Enrollment System Intermedi	
+ -		(

Close this page and proceed with connecting to the wireless network.

Join Wireless Network

When the wireless configuration is installed using a network profile, you must manually connect to the secure network. Use the airport icon in the top menu bar to select the specified network.

FIGURE 21. S	ecure Network
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🤶 🔹 💽 (100%) Wed 2:55 PM	Test
Wi-Fi: On	
Turn Wi-Fi Off	
✓ DVES-Secure	₽
C-Test39	₽
Cloudpath BVT Secure	₽
Cloudpath DPSK	₽
CloudpathTest	₽

A check mark indicates the network to which you are connected.