

Cloudpath Enrollment System

End-User Experience for Linux Devices

Software Release 5.1 May 2017

Summary: This document describes the end-user experience for devices running the Fedora or Ubuntu 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 Linux 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 a Linux operating system to the secure network.

Supported Versions

Cloudpath supports the following Linux versions with automated configuration:

- Ubuntu version 12.04, and later
- Fedora version 18, and later

All earlier versions are supported with manual configuration.

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.

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.

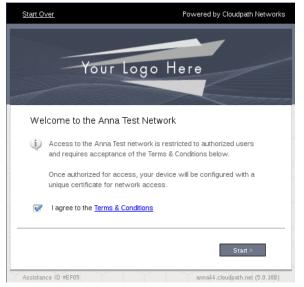
Welcome Screen With AUP

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 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 page text and *Start* button may 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

<u>Start Over</u>	Powered by Cloudpath Networks
Your	Logo Here
Your username and passw	vord are required to access the network.
Username: Password:	
Need Assistance?	
< Back	Continue >
Assistance ID #EF05	anna44.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

<u>Start Over</u>	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 #EF05	anna44.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

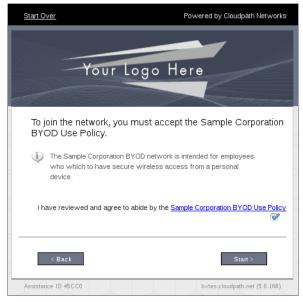


Enter the voucher code and click Continue.

BYOD Policy

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

FIGURE 6. BYOD Policy



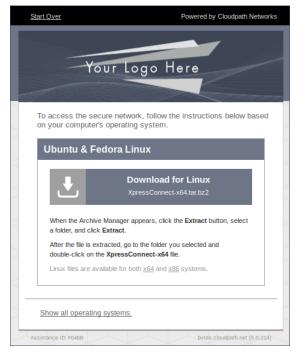
Click Start to continue.

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

Linux Download Page

The application detects the user agent for a Fedora or Ubuntu operating system and provides the correct configuration instructions. This screen includes the steps to install the application and to configure the device.

FIGURE 7. Linux Download Page



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

Open Downloaded Files

You can either *Open* with Archive Manager or *Save* to the Downloads folder. The Archive Manager automatically opens the files to extract. You must double-click the tar file in the Downloads folder to open and extract them.

FIGURE 8. Open Download File

<u>Start Over</u>	Powered by Cloudpath Networks
Opening XpressConnec	t-x64.tar.bz2
You have chosen to open:	
🗎 XpressConnect-x64,tar,bz2	
which is: Zip archive (6.7 MB)	
from: https://bvtes.cloudpath.net	
What should Firefox do with this file?	
Open with Archive Manager (de	fault) 🗸
◯ <u>S</u> ave File	
Do this <u>a</u> utomatically for files like	this from now on.
	Cancel

Click OK to continue.

Extract Downloaded Files

Extract the application files that were downloaded.

FIGURE 9. Select Files to be Extracted

Start Over	Pow	ered by Cloudpath Ne	tworks
Xpress	Connect-x64.	tar.bz2	×
🕒 📮 Open 🐱 🛛 🔷 Add Files	s 🗃 Extract	Q	~
📀 Back 📎 🔗 旑 Location	: 🚺 /		
Name 🗸	Size	Туре	Modified
🙆 network_config.xml	238.0 kB	XML docum	30 March 2015, 10
resources.properties	18.3 kB	unknown	30 March 2015, 10
session.properties	126 bytes	unknown	30 March 2015, 10
TyressConnect-x64	16.8 MB	unknown	30 March 2015, 10
4 objects (17.0 MB), 4 objects selec	ted (17.0 MB)		

Select all files and click Extract. Choose a location for the extracted files and click OK.

Open Application File

Double-click the *Cloudpath-x64* file to start the application.

Note >>

If you are running a 32-bit OS, run the *Cloudpath-x86* file.

FIGURE 10. Open Application File

< > A Home	Downloads test		Q =		¢ ×
Places ⑦ Recent	network_config.xml	resources.properties	session.properties		
Documents ジ Downloads ቭ Music	XpressConnect-x64	XpressConnect-x64.			
☑ Pictures ┤ Videos ⑪) Trash					
Devices S Computer Network Browse Network					
민 Connect to Server			"XpressConnect-x64	" selected (16.8 MB)

The Wizard runs through the configuration and migration process.

11 20th

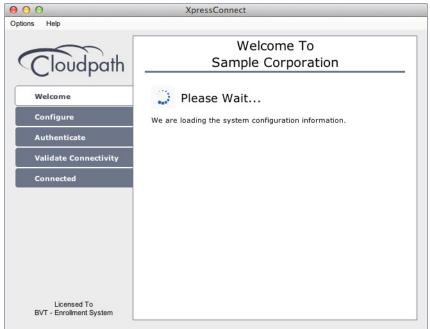
Wizard Application User Experience

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 11. Please Wait



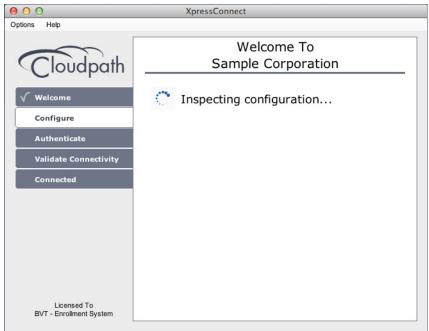
The configuration process takes less than a minute.

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Inspecting Configuration

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

FIGURE 12. Inspecting Cor	nfiguration
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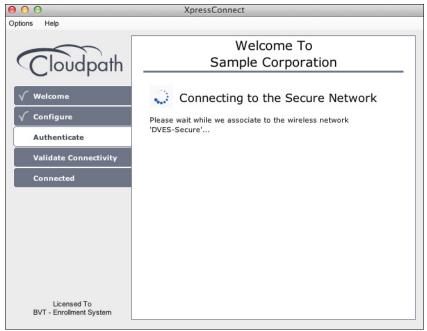


The application continues with the authentication process.

Connecting to Secure Network

The application attempts to associate to the wireless network.

FIGURE 13. Connection to Secure Network

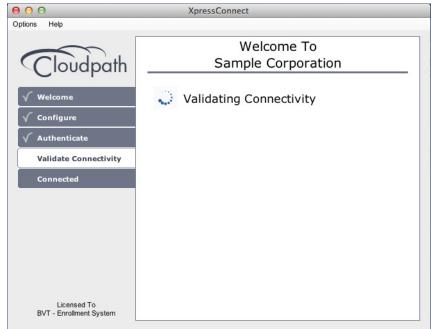


The application continues with the validation process.

Validating Connectivity

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

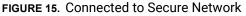
FIGURE 14. Validating Connectivity



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.

View Network Connection

View the wireless network to verify the Wi-Fi network name.

FIGURE 16. View Wireless Network



The Wi-Fi setting displays the secure network.